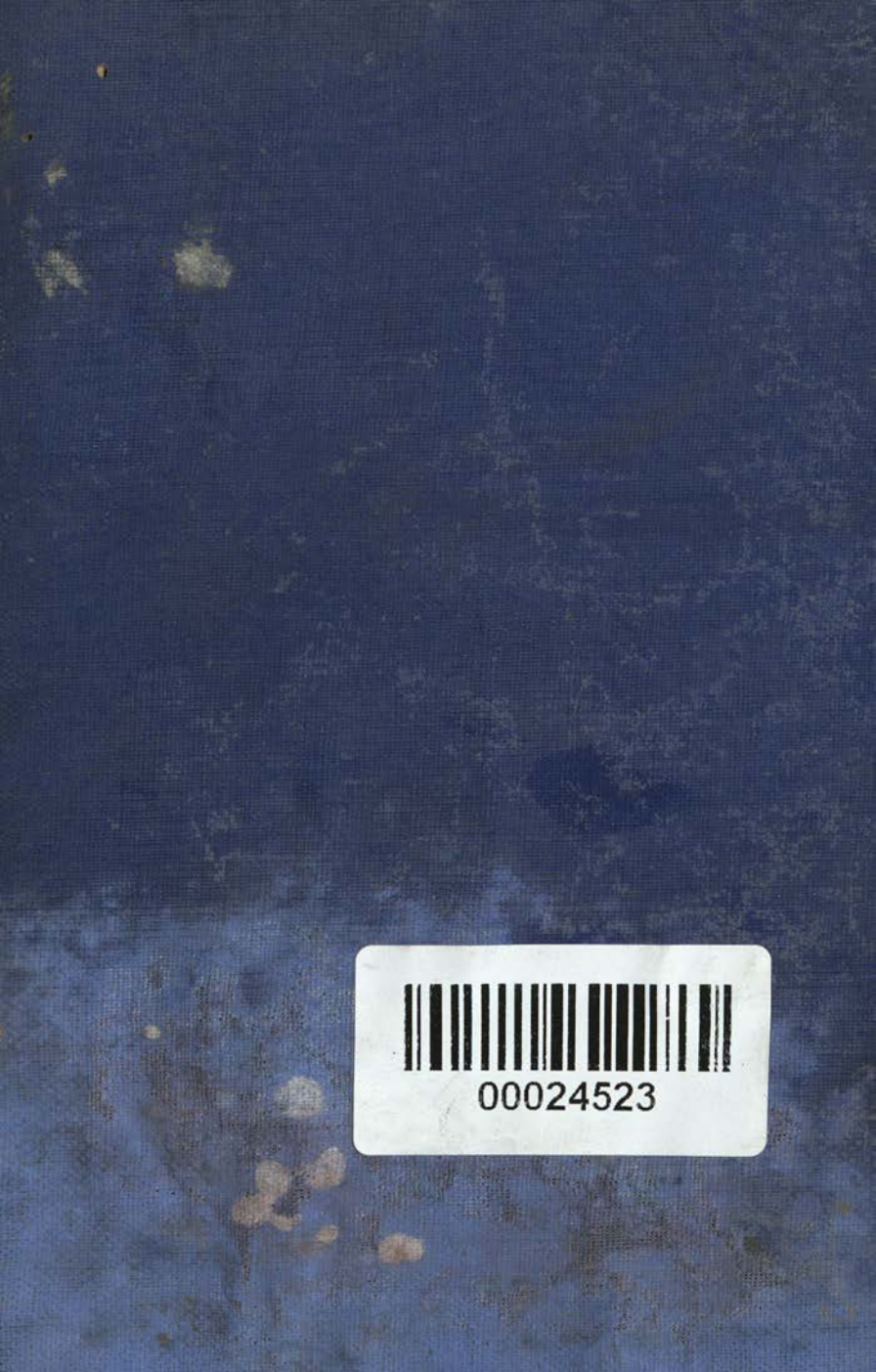
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Philosophical Classics for English Readers

EDITED BY

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HOBBES

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HOBBES

BY

GEORGE CROOM ROBERTSON

GROTE PROFESSOR OF PHILOSOPHY OF MIND AND LOGIC IN UNIVERSITY COLLEGE, LONDON.

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PREFACE.

SMALL as this volume is, untoward circumstances have prevented its completion till long after the first third of it was already in print. The delay is only too likely to have affected the unity of treatment; still, the original design has been adhered to in the main. That design was, even within such narrow compass, (1) to bring together all the previously known or now discoverable facts of Hobbes's life; and (2) to give some kind of fairly balanced representation of the whole range of his thought, instead of dwelling only upon those humanistic portions of it by which he has commonly been judged. Readers will not proceed far before they apprehend the reason why the account of the "System" has here been imbedded in the "Life,"—in departure from the usual order of exposition in books of the kind. More than of almost any other philosopher, it can be said of Hobbes that the key to a right understanding of his thought is

to be found in his personal circumstances and the events of his time.

I desire to offer most grateful thanks to His Grace the Duke of Devonshire, not only for permitting me to have free access to the Hobbes MSS. at Hardwick, but also for his signal generosity in intrusting the more important of them to me in London, when it was found that they could not be conveniently studied on the spot. This favour was first granted, a long time back, at the instance of the late Mr Grote; but lately it has been renewed, as regards the most valuable of the MSS. (the copy of 'The Elements of Law, Natural and Politique,' with Hobbes's autographic dedication and corrections), upon the expression of a simple request. I have been thus enabled to discover not a few facts of importance concerning one whose connection with three generations of the Cavendish family reflected equal credit upon it and upon him.

My thanks are due also to the Council of the Royal Society—moved by my friend Mr Francis Galton—for so readily allowing one of the two portraits of Hobbes in possession of the Society to be photographed for the frontispiece of the volume. Though the history of this portrait appears not to be traceable, it unmistakably represents the man whose name it bears,—and at an age much earlier than any of the other portraits (all good) that have previously been reproduced. Unfortunately, the painting has become very dark, and the necessary distinctness has not been obtained in the

photograph without some sacrifice of the shades marked in the original. The result is nevertheless very creditable and of exceeding interest.

A few narrative sentences—chiefly in chap. vii., and making about a page or two altogether—do not differ materially, when at all, from some that stand in the article on Hobbes contributed by me to the last edition of the 'Encyclopædia Britannica' in 1880. There seemed no advantage in seeking to give them a different turn, when precisely the same meaning had to be conveyed, — in their case at no greater length; and I have to thank the publishers of the 'Encyclopædia' for according the use of them. (Perhaps I may be permitted here to note that, in the 'Encyclopædia' article, Hampden's *trial* for ship-money is erroneously set down as begun in February, instead of November; and for the footnote on Bishop Laney at p. 36*a* I would now substitute what stands at bottom of p. 202 below.)

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HOBBES.

CHAPTER I.

YOUTH—OXFORD (1588-1608).

THREE names of English thinkers stand out before all others in the seventeenth century—Bacon, Hobbes, and Locke. Bacon died in 1626; Locke did not come forward with his 'Essay' till 1690. Nearly the whole interval is spanned by the activity of Hobbes. Approaching his fortieth year when Bacon died, he was then just embarking on his philosophical career. He was still at work more than fifty years later, and his writings had not all appeared (after his death in 1679) till 1688. Nor did he cease to exercise men's thoughts long after Locke had given them a new direction.

In the spring of 1588 the Spanish Armada stood ready in port to set sail, and the air in England was thick with the rumours of coming ill. What panic there was even in quiet rural nooks, may be judged

from the fact recorded that the vicar's wife at West port, adjoining (now forming part of) Malmesbury, in North Wilts, gave premature birth, in sheer fright, to her second son, Thomas, on Good Friday the 5th of April. She brought forth himself and a twin brother Fear, he said long afterwards, when he chose to fancy that to this accident of his birth might be traced his hatred of his country's foes, his passion for peace and social calm.[1]

Nothing more is known of his mother, except that she came of a race of yeomen. Her husband, Thomas Hobbes, vicar of Charlton and Westport, had a character and a fate that are best told in the words of Aubrey: "The father was one of the ignorant Sir Johns of Queen Elizabeth's time; could only read the prayers of the Church and the homilies, and valued not learning not knowing the sweetness of it. He was a choleric man; and a parson (who, I think, succeeded him at Westport) provoked him on purpose at the church-door

[1] 'Vita carmine expressa,' lxxxvi. There are three original accounts of Hobbes's life, first published together in 1681, two years after his death, by R. B. (Richard Blackbourne, M.D., a friend of Hobbes's admirer, John Aubrey—not, as sometimes supposed, Ralph Bathurst), with Cowley's Ode and complimentary verses by Aubrey and Bathurst, all reprinted in the Introduction to vol. i. of Molesworth's collection of the 'Opera Latina': (1) 'T. H. Malmesb. Vita' (pp. xiii-xxi), written in Latin by Hobbes himself, or (as also reported) by T. Rymer, at his dictation; (2) 'Vitæ Hobbianæ Auctarium' (pp. xxii-lxxx), including lists of Hobbes's friends, works, opponents, &c., written in Latin by Blackbourne on the basis of Aubrey's English notes; (3) 'T. H. Malmesb. Vita carmine expressa' (pp. lxxxi-xcix), written in elegiac couplets by Hobbes at the age of eighty-four (first published by itself in 1679-80). The 'Life of Mr T. H. of Malmesburie,' printed in 'Letters, &c., and Lives of Eminent Men,' in 1813, from Aubrey's papers in the Bodleian Library and Ashmolean Museum (ii. 593-637), gives interesting particulars not found in

So Vicar Hobbes stroke him, and was forced to fly for it; and in obscurity, beyond London, died."[1] It is not said when the catastrophe befell; but the fugitive's children, two boys and a girl, found a second father in his brother, a flourishing glover in Malmesbury, and alderman there. The elder boy, Edmund by name, not unlike his brother in face, and almost as long-lived, but in intellect "only a good plain understanding countryman," was bred up to the glove-trade. A son of his, also resembling the philosopher "about the eye," and by him very kindly treated, drank and was "an ill husband": he died shortly after his father in 1670, leaving five children, all remembered in their grand-uncle's will, money being left to bind them apprentices, and the like.[2] It was a plain English stock (as the name Hobbes, Hobbs, or Hobs, implies), that now chanced to throw off among its obscure scions one who was destined to leave a broad mark in the history of the English mind.

the 'Auctarium,' while many supplementary references to his hero are found scattered through the other 'Lives.' Still others are to be found in Aubrey's 'Topographical Collections' ('Wiltshire,' Ed. Jackson, 1862; containing a sketch "of the humble cottage in which Hobbes was born, . . . taken down some years ago").

I have also, by the kindness of the Duke of Devonshire, been permitted to consult at leisure all the papers belonging to Hobbes that still remain at Hardwick Hall, where he died: these, as mentioned from time to time below, have yielded new facts of importance, and have cleared up several obscure points. Other extraneous sources of information will be referred to by the way.

Hobbes's Works have been made accessible by Sir W. Molesworth's collected edition in 16 vols. (1839-45): 'English Works,' 11 vols. (the last, Index and Plates); 'Opera Latina' (with Index), 5 vols. These will be cited respectively as E. and L.

[1] 'Topog. Coll,' p. 264 n.

[2] 'Life of Mr T. H.,' *passim*.

Though hastily ushered into the world, the child does not seem to have suffered in constitution. At the age of four he was put to school at Westport Church. At six, he says, he was learning Latin and Greek. Advanced to the Malmesbury school at eight, he was taught again, later on, at Westport, in a private school kept by a young man, Robert Latimer, fresh from the university and "a good Grecian"—"the first," says Aubrey, "that came into our parts since the Reformation." Latimer "delighted in his scholar T. H.'s company, and used to instruct him, and two or three ingeniose youths more, in the evening till nine o'clock." The boy made such progress that he was able to translate the 'Medea' of Euripides into Latin iambics before he was fourteen. Though he was playful enough, there was remarked in him a strong contemplative habit: "he would get him into a corner, and learn his lesson by heart presently." "His hair was black, and the boys, his schoolfellows, were wont to call him 'Crow.'"[1]

About the age of fifteen, apparently in January or February 160$\frac{3}{3}$, he passed to Oxford, at his uncle's charges, and was entered at Magdalen Hall. There he remained, for whatever reason, five years, instead of the four then prescribed, before taking the degree of bachelor. They were years of much disorder and excitement, as we gather from Wood's 'Annals,' and the impression they left on him appeared long afterwards in his vehement denunciations of the academic system. Sixty years later he remembered Oxford as a place where the young "were debauched to drunkenness, wantonness, gaming, and other vices," so that he could almost for-

[1] 'Life,' pp. 599, 600.

give the Commission of 1648 its Puritan and Parliamentary origin for the good work it did in purging the spot.[1] The universities generally seemed to him mere hotbeds of political sedition, instituted by Rome in the Middle Ages to support Papal encroachment on the civil power, and still preserving, in whatever changed conditions of modern national life, their old ecclesiastical spirit. Some of the incidents and circumstances recorded by Wood (in one place or another[2]) are worthy of note, in default of more direct information concerning Hobbes's student-years.

An ecclesiastical conflict, growing ever more and more political, kept Oxford excited during all those years. In 1604 (the year of the Millenary Petition and Hampton Court Conference), the Reforming or Puritan party in the university is noted as having been particularly active, "multiplying preachings" on whatever occasion, and generally making itself felt—in ways perhaps little to the taste of the undergraduate mind. In 1605, after the attempt of Guy Fawkes, Puritan and anti-Puritan could join for a little to persecute the Papists; but, only next year, a shock was sent through the Puritan section by the public sermons of an active bachelor of divinity, William Laud by name, savouring of Popish doctrine; and the scandal was renewed in 1608, when Hobbes was leaving. One year after his departure, "a young forward bachelor" was brought to his knees for daring to maintain "that it was lawful for a subject, in cause of religion, to forsake his prince, and take up

[1] E., vi. 347.

[2] 'Hist. and Antiqq. Oxf.' (Gutch), including 'Annals'; also 'Athenæ Ox.' (Bliss).

arms against him"—a thesis hitherto familiar only to Papists (in opposition), but now beginning to find expression among Puritans also, and fated to be carried far in the coming years. More than elsewhere, at Magdalen Hall Hobbes might thus early be led to mark the rising Puritan spirit. The house had grown up, first as a grammar-school, then as a dependent hall, under the shadow of the great foundation of Magdalen College, which its old Puritan president, Dr Humphrey, had "stocked with such a generation of Nonconformists as could not be rooted out for many years after his decease" (in 1589). Constituted as a separate hall, with Dr John Hussee as principal, in the year before Hobbes's entry, it received from the college during his stay a second head in Dr John Wilkinson, of whom it is recorded that he ruled strongly in the interests of the Puritan party in the university, and had under him (some years later) as many as three hundred inmates of the hall, among them more than forty masters of arts, "all mostly inclining to Calvinism." Conditions like these cannot have been without effect on the destined foe of the Puritan Revolution.

In the matter of discipline, the 'Annals' bear out Hobbes's recollection to the full. At a time when older men were contending for the introduction of new habits of rigour into the Church, the greatest licence prevailed among the students. Years before Hobbes's time, chancellors on their advent, and often besides, had been fulminating reproofs; but any improvement that ever followed never lasted long. In 1606 the evil was at a height. The previous year had been marked by a royal visit, when the new king from Scotland was saluted

at Christchurch "with great acclamations and shoutings of the scholars" (in number now about 2254), "besides laics innumerable," and for some days Oxford was given up to ceremonial and feasting. The Court went its way, and the students were left the worse for its example. In an official lament, the authorities bewailed the days of decency and order gone, when sack used to be taken as cordial only, and sold by apothecaries: now nothing was more common than smoking and "that damned sin drunkenness." Strict rules were framed and penalties imposed, but with little effect. Hobbes lived at the university in a period of disorder to the end. The year 1607 was noted for its excesses; and once more, in 1608, a new chancellor had to open with words of solemn rebuke.

As might be expected, there was, according to the 'Annals,' as little order in the studies as in the general discipline of the university. Chancellor's orders and reproofs, sent down in quick succession in those years, have, besides the moral laxity, for their never-failing burden the neglect of the academic exercises. In 1601 the disputations called *Parvisii* or *Generals*, for undergraduates proceeding bachelors, had to be revived, the "glorious exercise" having fallen into a bad way since it last had been quickened into life. Within five years it could again be described as "either quite collapsed or neglected," and there was need of an express order that no one should be allowed to proceed bachelor till he could swear he had performed that exercise. Yet, only two years later, it was in no better case than before. When the commonest routine of the old scholastic system could not be maintained for two years together, we may

judge what power was left in Oxford at that time to train a clear and sharp intellect like Hobbes's.

Aubrey[1] speaks of him as rising early on summer mornings to snare jackdaws, and otherwise says: "He did not care much for logic, yet he learnt it, and thought himself a good disputant; he took great delight there to go to the bookbinders' and stationers' shops, and lie gaping on maps." With more circumstance, his own quaint verses in old age[2] tell how, on entering the hall, he was placed in the lowest class of logic, and followed with attention the beardless prælector gravely expounding *Barbara Celarent.* Slowly he took in this doctrine of moods and figures, and then he threw it aside, being allowed—or, we may suppose, being determined—to prove things in a way of his own. Advanced to physics, he next learnt from the master that all things were made up of matter and form as parts, that species of things floating through the air conveyed forms to the eye and sounds to the ear, that effects in nature were due to sympathy and antipathy—with much else of the like sort all beyond his grasp. Wherefore he turned to things more congenial, took up his old books again, fed his mind on maps and charts of earth and sky, tracked the sun in his path, followed Drake and Cavendish as they girdled the main, and gazed with delight upon pictured haunts of men and wonders of unknown lands.

All which may be taken to mean that he was idle as a student, and had a stronger interest in men and things than in the modicum of scholastic doctrine doled

[1] 'Life,' p. 600.
[2] 'Vit. carm. exp.' (L., i. p. lxxxv:).

out by his teachers. It does not mean, as might be supposed, that he had already an insight into the weakness of the School-philosophy. When, long afterwards, he is vehemently denouncing Scholasticism, and helping to complete its overthrow, he shows little real acquaintance with the object of his scorn;[1] and least of all is there reason to think of him as turning away from the traditional doctrine with a conscious purpose now. There is no sign that, like Descartes about the same age, he was weighed down with the burden of thought. Oxford gave him no preparation for the work of his life, but neither does he seem to have passed out from under the academic system with anything of that high dissatisfaction which other leaders of thought in the coming time were then carrying with them into the world. It is therefore unnecessary to dwell longer upon this first stage of his experience. As far as can now be made out, it may be doubted whether, as an undergraduate, he would be introduced at all to the study (in scholastic paraphrase) of the Aristotelian physics and metaphysics, and whether he was not referring back to these early days the impressions of a much later time; but the point is of no importance. He was neither lost to Scholasticism nor gained to anything else at the university. It was upon the broader field of

[1] He occasionally quotes Suarez, and had evidently looked into the works of this last great representative (d. 1617) of Scholasticism; he may also have turned over the pages of Peter the Lombard and John Duns Scotus before saying (E., vi. 214) that any one not knowing their design of advancing the Papal authority would judge them "to have been two of the most egregious blockheads in the world, so obscure and senseless are their writings;" Thomas Aquinas is just mentioned. In general, he only says more forcibly what every one was then saying of the Schoolmen.

the world, and slowly, that his mind was roused to independent activity. He was just completing his twentieth year when he took his bachelor's degree, on the 5th of February 160$\frac{7}{8}$. Twenty years more were to pass before we see him even beginning his work of philosophy.

CHAPTER II.

THE SCHOLAR (1608-28).

THE next twenty years are a distinct period of Hobbes's life, regarded either from without or within. From 1628 he is seen on the way to become a philosopher, with widening vision and in the end overmastering purpose. Till then he appears as a man of scholarly habit, in circumstances of quiet leisure that enable him to indulge it actively or otherwise as he will.

After taking his degree, Hobbes, later in the same year (1608), entered into relations with a great family that once and again were loosened but never were broken till his death, after more than seventy years. William Cavendish, second son of the famous "Bess of Hardwick" by the second of her four marriages, newly created Baron of Hardwick, and some years later (1618) made Earl of Devonshire, was then seeking a tutor, or rather companion, for his eldest son, and had Hobbes recommended to him by the principal of Magdalen Hall. Young Cavendish was about the same age as Hobbes, and was already married, in April of this year,—at the instance of King James, who made the match and dowered the bride,—to the daughter of the Scottish Lord

Bruce of Kinloss, a child of twelve. The unequal pair had, of course, no establishment for some years to come, while the husband had still the grand tour to make, not setting out upon it till 1610. In the interval, Hobbes waited on him, and apparently much less of work than sport went on. Aubrey, who begins by saying that, though Hobbes was chosen for his youth, rather than "a grave doctor," yet it was with a view to study, goes on to speak of him as a "page" who "rode a-hunting and hawking" with his master. He kept the young man's privy purse, and what this duty (now or later) involved is disclosed in another of Aubrey's scraps. "His lord, who was a waster, sent him up and down to borrow money and to get gentlemen to be bound for him, being ashamed to speak himself;" whereby Hobbes "took cold, being wet in his feet, and trod both his shoes aside the same way," becoming indeed "unhealthy and of an ill complexion (yellowish)." It is added that "by this way of life he had almost forgot his Latin."[1] The father, however, was not dissatisfied, but sent the young men, who had become fast friends, abroad together.

Four times in all Hobbes travelled or lived, spending little short of twenty years, on the Continent, and every time except the last we shall see him there receive a distinct mental impulse. The first journey, which lay through France, Germany, and Italy, was begun in the year when France and Europe were thrown into consternation by the deed of Ravaillac; and so readily does the fanatic's name slip from his pen even half a century later, that we may well suppose the future apostle of

[1] 'Life,' pp. 602, 619.

the inviolability of the sovereign to have been moved by what he may have heard or seen of the tragic event and its consequences at the time.[1] A moderate knowledge of French and Italian picked up by the way was his first gain. For the rest, though already he had eyes to mark how the currents of thought were setting, his Oxford training had left him quite unable to comprehend the true forward movement of the time, turned wholly in the direction of physical science. The year before, Kepler, in great poverty at Prague, had published his 'Astronomia Nova,' embodying his first and second laws. Prague and Kepler lay far out of the way, but on the very line of the grand tour was Galileo, just returned to his native Tuscany after a brilliant professorate at Padua, flushed with many triumphs over nature—the last of them the discovery of Jupiter's satellites by means of his new telescope. Galileo's acquaintance Hobbes did make as soon as he could profit by it; but that was not for five-and-twenty years to come. At this time, if he heard anything of the wonderful physical discoveries, they could to him be wonders only. He had learnt some philosophy, however; was knowing, if not very confident, in *Barbara Celarent;* and, though not clear about quiddities and separate essences, should have been open to impressions on that side. On that side there was nothing stirring by which he could be impressed. Descartes was still at school with the Jesuits of La Flèche, and, were he set free, had all his long doubts to struggle through before he could work out his principle of certainty, and with the enunciation of it open the era

[1] E., iv. 294; vi. 126. L., ii. 116.

of modern philosophy. With Descartes, also, Hobbes was to come into contact, but not till after many years, when each had his own way of thinking fixed, and nothing but quick repulsion was any longer possible between them. In the dearth of original thinking, and in the actual state of opinion, there was indeed, at the time, but one impression that a mind like his, trained as it had been, was likely to take on, and this was a feeling of aversion to all philosophy.

On every hand he found the philosophical doctrine he had learned at the university spoken of in a tone of utter contempt. The fact was that, ever since Scholasticism, more than a hundred and fifty years before, had ceased to have in it any principle of further growth, the best heads, when not turned to entirely different pursuits, had been engaged on little else than attempts to throw discredit upon it and its authorities. Among the effects of the revival of letters, one of the first had been to bring forward Plato against Aristotle; and, working upon him and the Neo-Platonists, a number of thinkers had appeared in the sixteenth century with theosophic and pantheistic views, in sharpest contrast to the spirit of scholastic thought. The world of nature, also, which the Schoolmen had looked upon askance when they did not wholly drop it out of sight, had begun to draw attention from others than alchemists and magicians. A succession of hardy speculators in Italy had even aimed at constructing a pure philosophy of nature; and one of them, Giordano Bruno, besides steering straight against scholastic principles in the attempt to explain the universe out of itself, had eagerly worked in with his system the astronomical theories of Copernicus, against

which both Church and School stood deeply committed. Though a doctrine like Bruno's could have no permanence in itself, the restless activity of such a man was a most powerful disintegrant in the body of received opinions: for a single convert that he made, he sapped in a hundred minds their faith in the old philosophy; wherefore the Church had burned him only ten years before this time. When the seventeenth century opened, Scholasticism retained but little of its former hold on the human mind. Its influence was gone with men of the world, among whom there had grown up silently an educated opinion, reflected in such pages as Montaigne's, with nothing of the tone of the schools. It prevailed no more among the great and growing class of the learned, who could now range through the treasure-house of ancient lore; more eager, if they were philosophically inclined, to seek out, in the new-born feeling of revolt, any name and any system that could be set up against the Aristotle of Albert and Thomas, than minded to discover the truer and greater Aristotle himself. Least of all did it weigh with the votaries of physical science, full of the promise of the future. It still held its ground only within the universities, its own creation, where a modicum of its conclusions remained the sole instruction proffered to the young, and its traditional exercises the sole mental training; or in so far as bustling Jesuit theologians, self-constituted heirs and champions of the past, took its methods as the weapons of their reactionary warfare. A natural consequence was that, in society and in all the centres of mental progress, the worn-out system was hardly more discredited than was the habit of formal

thinking so long confined within the scholastic lines. It was the habit of the time to make light of all philosophy.

Introduced to a world where he saw the result but could not know how it had come to pass, Hobbes was in just the state of mind to yield to the prevailing current of opinion. Indifferent to his Oxford learning, if not suspicious of its value, he had but to see it openly contemned to cast it away as worthless; nor had he as yet any such impulse to *independent thought* as helped Descartes, in the like case, to distinguish between Scholasticism and philosophy, and begin speculating anew upon deeper lines of his own. His training had left him wholly unfit to descry the novel promise of physical science, which should henceforth vie with philosophy in its claims on the inquisitive spirit of men. He had only ambition enough to wish to be seen at work, like others, upon something else than the vain occupation of abstract thinking. His knowledge of Latin and Greek was no longer what it had been, but it was still possible for him to become a scholar and enter by the way of classical learning into a knowledge of men and things. It was the age of Scaliger and Casaubon as well as of Galileo. Hobbes came back from his first sojourn abroad—it is not said in what year—determined to make himself a scholar.

What he did in pursuit of this aim is told us, in one or other place, by himself, and the short record sums up all that is known directly of his life till the time of middle age. Having abundant leisure and easy access to books, in the service (as secretary) of a master than whom "there was not any . . . in whose house a man should

less need the university,"[1] he went carefully through the classical poets and historians, reading critically with the help of the best commentators; at the same time bent —it is the solitary evidence that he had the thought of serious work before him—on acquiring a good Latin style, clear and easy to read because fitting words to thoughts. Poets of every kind attracted him; among historians, before all others Thucydides. Of Plato and Aristotle there is no mention; having turned his back upon the traditional philosophy because he saw it despised, he was not likely to be won to a life of speculation by the great Greek thinkers at the time when they were least understood and esteemed. A reader and man of erudite tastes, he retained something of the character to the end; for though, in his later years, he would say that if he had read as much as other men he should have been as ignorant as other men,[2] this meant only that in time he came also to think much. The name of scholar is not misapplied to one who began his literary career with a translation of Thucydides and closed it with a translation of Homer.

The Translation of Thucydides was published in 1628-29 when he had completed his fortieth year, and is proof of the serious purpose with which he took to scholarly pursuits. It proves no less, as we shall presently see that by that time the political instinct was strongly astir within him. First, however, there is need to define his relations, at this period of life, with some of those who figure in Aubrey's long list of his friends.

Foremost stands Bacon, who is said to have taken delight in his company, and to have employed him in

[1] E., viii. p. iv.

[2] 'Life,' p. 621.

translating into Latin some of his works, finding none able so readily to understand the thoughts in them. The fact that there should have been any personal relations between the two men is interesting in itself; and so natural is the disposition to trace a continuity in the evolution of philosophic thought, that it is no wonder the connection has had much significance attached to it. Was this not the very time when Bacon stood out before Europe the herald, if not the leader, of the great scientific movement of modern days, and to his own land set an example of sober practical thinking which the English mind has never since forgotten? If Hobbes, in the last years of Bacon's life, was gradually working his way through scholarly studies to the position of a philosophical thinker, under whose influence but Bacon's could the development proceed? From whom but the first of English modern philosophers should the second, being in actual contact with him, learn to think with the freedom of a modern, and the practical purpose of an Englishman?

In the last resort, Aubrey, whose general statement in the 'Vit. Auct.' has been already quoted, appears to be responsible for the whole story. He relates elsewhere[1] that Hobbes "was beloved by his lordship, who was wont to have him walk with him in his delicate groves when he did meditate; and when a notion darted into his head, Mr Hobbes was presently to write it down, and his lordship was wont to say that he did it better than any one else about him; for that many times when he read their notes, he scarce understood what they writ, because they understood it not clearly themselves."

[1] 'Lives,' ii. 222.

Again:[1] "The Lord Chancellor Bacon loved to converse with him. He assisted his lordship in translating several of his essays into Latin; one I well remember is that of the 'Greatness of Cities' ['Of the True Greatness of Kingdoms and Estates']; the rest I have forgot. His lordship was a very contemplative person, and was wont to contemplate in his delicious walks at Gorambery [Gorhambury, in Herts], and dictate to Mr Bushell or some other of his gentlemen that attended him with ink and paper presently to set down his thoughts. His lordship would often say that he better liked Mr Hobbes taking his thoughts," &c., as before. So much may be taken as unquestionable. Next, it is very probable that the introduction took place through Hobbes's young master, who can be proved to have been a friend of Bacon's.[2] And finally, from the tenor of the testimony regarding all concerned, it may be presumed that the intimacy coincided in time with the closing years of Bacon's life, especially from 1621 to 1626, when, shorn of his official dignities, he gave himself up to writing and scientific pursuits at his country-seat.[3]

It is clear, then, that Hobbes was in the habit of consorting with Bacon, and was known to him as a man of scholarly attainments and notoriously quick apprehension. But is there any ground for supposing that he showed a special enthusiasm for Bacon's aims, or stood

[1] 'Life,' p. 602.

[2] A sermon, entitled 'The Holie Citie,' preached in 1619 at York House before the Chancellor, was dedicated to Lord Cavendish as being in league with "that noble Advancement of Learning [Bacon], for whose service it was first moulded;" and there is further evidence in Rawley's 'Life of Bacon.'

[3] It was from Hobbes that Aubrey had the well-known story of Bacon's death ('Lives,' ii. 227).

at all in the relation of a disciple? There is no such ground. He was no longer a youth, as some have fancied, when Bacon descried his superior powers: the time of juvenile ardour was already past. Least of all is an eminent German critic[1] warranted in asserting that he took in hand Bacon's half-finished work, and, setting himself to explain on naturalistic principles the moral world, as Bacon had explained the physical world, accomplished a task that Bacon had indicated but had either not the power or not the will to attempt. To say that Hobbes treated moral and social phenomena as a naturalist is correct enough; but that he did so with any reference to Bacon cannot be allowed. There are two ways of looking at Hobbes's moral and political speculations, and with either the supposition is inconsistent. If they are regarded as part of a complete philosophical system of his own, it is implied that he did far more than solve a particular problem left by a master. On the other hand, if they are viewed as the chief work of his life, and only fringed by the rest of his philosophy, that is to assert that he wrote to stem the great political revolution of the century—certainly not to stop a "gap" in Bacon. That he was not at all affected by his intercourse with a quickening spirit like Bacon's is, of course, impossible. But it would hardly be a greater mistake to attempt to trace an influence in a few detached points of agreement between the two, than to argue in the opposite sense from points of deep and notorious disagreement, or even to doubt the fact of their intercourse because Hobbes himself gives no hint of it.[2] What is important

[1] Kuno Fischer, 'Francis Bacon' (transl. by Oxenford), p. 416.

[2] Hobbes, in minor works on physical subjects, makes two passing

to note is, that in these earlier years Hobbes was not wholly taken up with ancient writers and grammarians, but must have had his mind turned to questions of philosophy as conceived by the great pioneer of modern thought in England. The real philosophical impulse came upon him, however, not from Bacon and not as yet. When it did come he took a line very different from Bacon's.

Next on the list of his friends is the name of Edward Herbert, afterwards (in 1631) created Baron of Cherbury, whose friendship also he doubtless owed to his master. Their intimacy at this period could be only by snatches, Herbert being generally on the wing, travelling or fighting, till 1616, and thereafter fixed abroad as English envoy at Paris, where he remained a number of years, and brought out his philosophical treatise 'De Veritate' in 1624. After this date Hobbes's growing interest in philosophy — soon to become eager — might lead him to this ingenious exposition of the view of human knowledge most opposed to his own; but not here, we may well suppose, nor in a common devotion to classical studies, lay their bond of union. This must be sought rather in the strong bent of both towards rationalistic criticism in religion. If the historians of the deistic movement are justified in tracing back its first origin to

references to Bacon's writings (L., iv. 316; E., vii. 112), but never mentions Bacon as he mentions Galileo, Kepler, Harvey, and others ('De Corpore,' ep. ded.), among the founders before himself of the new natural philosophy. Induction has no place in his doctrine of scientific method, and the word, when he uses it—three or four times throughout all his works, and these, again, minor ones—has never the least echo of Bacon's meaning. For Experiment in physics, it will be seen he had nothing but scorn.

Herbert, they rightly place Hobbes next in the succession. Yet here also their points of view are very different; for while Herbert, in accordance with the principles of his philosophy, compares the different historical religions to find the heart of all the creeds, and lay bare in each the few simple truths that make the common innate faith of mankind, Hobbes is content to accept the Christian religion as revealed and established, and only aims at reducing the number of points essential to salvation, in order to remove factitious causes of danger to the State from the strife of sectaries.

Other of Hobbes's friends—Ben Jonson and Sir Robert Ayton the poet—it suffices merely to mention in connection with the outcome of his scholarly studies. Jonson, chief potentate in the world of letters, could not fail to be seen at a place of literary resort like Devonshire House, as he was seen also at Bacon's; and Ayton, standing, though he was a Scotsman, only second to the laureate as an authority in all matters of style, was nearly related to Hobbes's mistress. The Translation of Thucydides was not sent to press, in 1628,[1] till it had been submitted to the judgment of both.

For Thucydides, Hobbes's early preference amounted to a positive affection. In no other writer did he find all the highest qualities of the historian combined to the same degree, and especially the power of making the story of the past suggest its lessons, without digressing "to read a lecture, moral or political." Others, he

[1] This is the date of publication given in 'Vit. Auct.' I have seen no copy dated earlier than 1629. The Translation was reissued in 1634, with the originally undated dedication dated as if then newly written. It fills vols. viii., ix. of E.

fancied, would be of the same mind, if they could read the work in a careful translation, and therefore in his spare hours he did his best in this way. But, the labour ended, he found his desire to publish gone. He saw that for the most part "men came to the reading of history with an affection much like that of the people of Rome, who came to the spectacle of the gladiators with more delight to behold their blood than their skill in fencing;" loving "to read of great armies, bloody battles, and many thousands slain at once," more than they minded the art whereby the affairs of armies and cities were conducted to their ends. Doubting also whether he should get readers to wade through the unfamiliar scenes of the book, he for a long time kept it back. At last, however, he made up his mind to be content with the "few and better sort," and sent it forth, providing maps and an index, with great labour, to make the story plainer.

Such was his account of the work at the time;[1] and not till long afterwards did he declare that, having learnt from Thucydides how much wiser one man is than a mass of men, he wished his fellow-citizens to take warning from the story of the Athenian democracy.[2] It may seem an afterthought thus to profess that at his first coming forth he began his long protest against the political spirit of his time; yet an afterthought it hardly can be. If in 1628 Hobbes was not an anxious spectator of the position of public affairs, he must have become strangely transformed in the next twelve years. Charles but three years on the throne, and already at

[1] E., viii. pp. vii-xi ('To the Readers').
[2] 'Vit. carm. exp.' (L., i. p. lxxxviii).

his third Parliament; his demands for supplies met by the Petition of Right; Buckingham impeached before being slain; the loyal High-Church party struck at through the censure of Roger Manwaring for the sermons on Religion and Allegiance; the old strife over forms between Prelatists and Puritans deepening rapidly into a far bitterer strife over doctrines between Arminians and Calvinists, over theories of civil government between royalists and republicans or democrats;—everything betokened that a deadly struggle in the State was at hand. The catastrophe, to be more complete when it came, was staved off for a time; but the man who later, upon the eve of the conflict, was the first to discern its real issues, cannot be supposed to publish his version of the impressive Greek history in utter unconsciousness of them now. Nor, indeed, are significant hints wholly wanting. It is noted, in an introductory account of the life and work of Thucydides, that he likes democracy least of all, and is favourable to government by one, be it by Pisistratus (save that he was a usurper) or by Pericles; Cleon is "a most violent sycophant," and "thereby a most acceptable speaker amongst the people." For Cleon might safely be written there the name of Eliot or of Pym.

If it may be presumed that even from his university days Hobbes had acquired a dislike and distrust of restless Puritan ways, much more is it likely that during the years of easy studious life, among the best society of the capital, he had not failed to watch the growing purposes of the Reforming party in Church and State. A natural bent towards political study, and a disposition to take the side of settled and visible authority, are both

disclosed in the first work of his pen—disclosed withal so plainly, that, should there now be roused in him the ambition to become, with his native vigour of thought and trained powers of expression, an original investigator and teacher, it might be predicted that a political purpose would be uppermost in his mind. We begin, in fact, to have a glimpse of the real Hobbes of the seventeenth century. The Translation of Thucydides need not detain us any longer. It shows him to have succeeded in forming his style and become a competent scholar; but at the same time the critical inexactness of the work, as judged by any strict rule, only makes clear that his business is not translating but already political instruction, which he might afterwards attempt by other means.

The period of leisurely study at an end, he is to be conceived, at the age of forty, a well-informed and even a learned man; with views in politics anxiously held; in philosophy with a deepening though as yet merely general interest—many of his observations on human nature made, perhaps some of his most characteristic opinions formed, but all lying unstrung in his mind.

CHAPTER III.

THE PHILOSOPHER (1628-37).

To the period of scholarly acquisition and easy self-culture, quickened only by the earnestness of purpose with which the Translation of Thucydides was undertaken, and at last, in the midst of a great political crisis, sent forth, there succeeds in the life of Hobbes a time of new and fruitful ideas, soon of busy thought, and, in the end, of determination to original labour.

It was not, however, as closing one stage of his mental history and leading on to another, but as marked by the saddest of all his personal experiences, that the year 1628 became most memorable to himself. In the month of June he saw his master and friend hurried off by disease in the prime of life, after only two years' tenure of the earldom. How deep was his grief appears in the noble and tender words written at the head of the 'Thucydides' before the year was out; and even at the distance of half a century his rough verses grow pathetic when they touch upon his early bereavement. The twenty years of companionship were, he says, by far the sweetest of all his life, and to the end they would come back upon him in dreams.[1]

[1] Here may be mentioned the five hundred and odd Latin hexame-

In the Devonshire household everything was changed. Left with three children, the heir only ten years old, the widowed countess had to set herself straightway to the task of bringing into order the family affairs, deranged by the lavish expenditure of her husband; and though some of her dispositions were little to her son's liking when he came of age,[1] she achieved her end with notorious tact and resolution. The services of Hobbes were at first dispensed with. It was not that he did not enjoy the countess's good opinion, for he went on living in the house for some months, and after some time was recalled to train the son as he had never had the opportunity of training the father. But in the interval he was left to shift for himself, and, smarting under a certain sense of neglect, he was not sorry to have his thoughts diverted from his loss by a change of scene. He therefore took a new engagement in 1629, to accompany abroad as travelling tutor the son of Sir Gervase Clifton, of an old Notts family.

Of his second visit to the Continent, there is hardly more to be said directly than of the first. New subjects began to occupy his mind, but nothing is told of the

ter verses, 'De Mirabilibus Pecci' (L., v. 324-40), which, though first printed in 1636, were written before 1628, within the two years when Hobbes's master was earl. They give a lively account of an excursion from Chatsworth round the Seven Wonders of the Derbyshire Peak. An English version, by another hand, added to a later edition in 1678, is given also in the collected folio edition of 'The Moral and Political Works' (1750).

[1] This appears from an extremely interesting 'Narrative of y^e^ Proceedings both Publique and Private concerning y^e^ Inheritance,' &c., of the young earl, preserved among the Hardwick MSS., of date April 12, 1639. It is signed repeatedly by Hobbes and the earl, and evidently is the work of Hobbes.

people he met or the manner of his life. He must have been supposed, from the accounts, to spend the whole time—eighteen months—in Paris, if there had not been preserved an undated letter to his pupil's father, intimating that they meant to reach Venice in October by whatever route the war between the French and Spaniards (War of the Succession of Mantua, year 1630) might leave open.[1] In politics he had the opportunity of watching the action of Richelieu, bent on making the King of France an absolute monarch, and labouring successfully at the task now being tried also in England but there destined to fail so utterly. In science and philosophy, if he had been able to make comparison upon old observations, he would have found the external aspect of things little changed since he had been abroad before. Physical science, under Galileo and others, had been steadily progressing; philosophy was describing the old rounds. With repetition here and progress there, the feeling against philosophy had, if possible, become stronger. It was still some years before Descartes was to speak out, nor was it known as yet beyond a private circle that something unheard of might be expected from him.

The invitation to take charge of the young earl's education reached Hobbes early in the year 1631. He was then back in Paris, and by this time deep in new studies, from which he was loath to be distracted; but as the charge promised to afford him sufficient leisure, he did not decline it, and returning to England he found an apt and docile scholar, who grew into a friend and the protector of his old age. In the course of instruc-

[1] E, vii. 451.

tion which he proceeded to give, he sought to imbue the youth "with all such opinions as should incline him to be a good Christian, a good subject, and a good son;"[1] taking him in some seven or eight years over rhetoric, logic, astronomy, and the principles of law, with other subjects.[2] Most probably their life till the middle of 1634, when they went abroad, was in the country; and to a later period should be referred Hobbes's intercourse with various members of that notable group of politicians in which Lord Falkland, from 1633, was the central figure. The years were fraught with interest to a political observer of his stamp, but as yet the future was veiled; and, little as he had sympathy with Laud's fretful ways,—"squabblings about free-will and standing upon punctilios concerning the service-book and its rubrics,"[3]—the hush imposed on the tumult of popular opinions during the reign of 'Thorough' may for the time have lulled even his anxiety. Abroad, for the third time, he had his mind otherwise engrossed.

They travelled, he and his pupil, with a considerable party, at an easy pace through France and Italy, taking in Alpine scenery by the way, but chiefly visiting the towns and making stay in the great centres. The route lay through Paris to Italy, and back through Paris again. A letter remains, written from Paris in October 1634, when he is fresh from England.[4] He

[1] MS. 'Narrative,' &c., at Hardwick Hall.

[2] The free English abstract of Aristotle's 'Rhetoric,' first published in 1681 as 'The Whole Art of Rhetoric' (E., vi. 423-510), corresponds with a Latin version dictated to his young pupil. The boy's dictation-book, interspersed with headings, examples, &c., in Hobbes s hand, remains among the Hardwick papers.

[3] E., vi. 255.

[4] E., vii. 452.

sends word of Richelieu's preparing to take part in the Thirty Years' War; replies to the query of his unnamed correspondent—why a man does not remember his own face so well as the face of a friend seen long ago—that, as all memory depends upon strength of impression on the sense, the sight of a friend's face for two hours together counts for more than the mere glimpses a man takes of his own face in a glass in a year's time; does not think he has any new truths to send, but (with the air of an authority) professes himself ready to answer any more questions. The next sure date is of another letter, from Florence in April 1636.[1] They are there on the return-journey from Rome, hoping to be back in Paris by the end of June; he is glad to have got so much home-news from his "worthy friend, Mr Glen;" longs "infinitely" to see Peter Heylin's 'History of the Sabbath' (just published, in 1636, as part of Laud's plan to countermine the Puritans), which, with Mr Glen, he fears "will put such thoughts into the heads of vulgar people as will confer little to their good life;" is looking forward to get Selden's 'Mare Clausum' in Paris, "having already a great opinion of it" (with English pride in such an assertion, against Grotius, the Dutch, and Europe, of the national birthright to the sea). Back in Paris, he remained there eight months, and so returned to England in the spring of 1637.

From the time when he was thus back in Paris, about the middle of 1636, Hobbes, as he claims with a touch of pride, began to be counted among philosophers.[2] To this, then, the second and third journeys together had brought him. One mental advance can

[1] E., vii. 454.

[2] 'Vit. carm. exp.' (L., i. p. xc).

be quite definitely assigned to the second; and if the time of his taking another step forward is less certain, at latest before the end of the third journey he had the sense of being well abreast of his scientific contemporaries and the ambition to be seen at work in the van.

In the course of the journey from 1629 to 1631 he first began to look into the 'Elements' of Euclid: such is his own simple confession.[1] Aubrey is equally *naïve* and more particular:[2] "He was forty years old before he looked on geometry, which happened accidentally: being in a gentleman's library in ——, Euclid's 'Elements' lay open, and it was the 47th Prop. Lib. I. So he reads the proposition. 'By G——,' says he, 'this is impossible!' So he reads the demonstration, which referred him back to another, which he also read, *et sic deinceps*, that at last he was demonstratively convinced of that truth. This made him in love with geometry."[3] Of himself he adds that it was the manner of the reasoning, still more than the matter, that fastened his attention, and made him a diligent student of Euclid from that day forth.

The results of this accident, if accident it was, will only too surely call for notice later on. For the present it is to be observed that Hobbes is a man past forty, learned, thoughtful and acute, before he casts eyes upon a proposition of Euclid, and learns the force of mathematical demonstration. How could that be? More easily than we are apt to imagine. He might

[1] 'Vita' (L., i. p. xiv). [2] 'Life,' p. 604.

[3] The story is confirmed by a passage (p. 154) in the original edition of 'Exam. et Emend. Math. Hod.' (1660), omitted in the later edition (1668), from which Molesworth reprints in L., iv.

have been a far more eager follower of Bacon than there is any reason to suppose he was, and yet not have heard of Euclid's name or gathered an intelligible notion of the value of mathematics. At the university he was in still less danger of being prematurely informed. When he was at Oxford, geometry made no part of any student's training, and was matter of concern to none except perhaps a small circle round Sir Henry Savile of Merton. A public lectureship on mathematics had only been instituted by Wolsey, when his downfall came and whelmed it with all his other foundations in ruin; nor was it one of those restored later by the more grudging hand of Wolsey's master.[1] It was in fear "lest the mathematic studies should utterly sink into oblivion" that at last, in 1619, years after Hobbes had left Oxford, Savile instituted his professorships of geometry and astronomy. Upon the foundation of these chairs, Wood relates that "not a few of the then foolish gentry" kept back their sons from the university, not to have them "smutted with the black art," most people regarding mathematics as "spells," and its professors as "limbs of the devil."[2] In similar phrase Hobbes himself complains, as late as the middle of the century, that the universities had only just given over thinking geometry to be "art diabolical."[3] There is thus nothing incredible in the story of his first lighting upon Euclid, and it must be well borne in mind to form any true conception of his mental development, past and future. With all his knowledge of books and men, all his learning and ripeness of judgment in politics or otherwise, he was

[1] 'Hist and Antiqq. Oxf.,' ii. 2. 836-40.
[2] *Ibid.*, ii. 1. 334-35. [3] E., iii. 671.

only, at this stage, beginning to have a glimpse of the strict procedure of science. He knew less mathematics after the age of forty than Descartes was taught at school; and never all his life and with all his pertinacious labour was he able to work as far into the science as Descartes had gone before the age of twenty.

Upon the third journey, another new subject has possession of his mind. Day and night he is haunted by the idea of Motion in nature. Whether he sails, drives, or rides, there motion is for ever meeting his eye, engaging his thought, and offering itself as the clue to the mystery of the varied universe.[1] The point not clear is, when he first seriously conceived that there was a mystery to solve, and that he might solve it. That for some time back he had had a general interest in questions of philosophy may be supposed: he could not have been about Bacon without acquiring some such interest, while his sudden passion for scientific demonstration and his attention to mental facts (disclosed in the letter above quoted) imply at least so much. We are even told by himself how the general interest was turned into personal concern and active pursuit.[2] One day, when he was in a company of learned men, and mention was made of sensation, he heard some one ask, with a kind of contempt, what sense was. No answer being forthcoming, he was struck that men who prided themselves on their superior wisdom should not understand the nature of their own senses, and from that time he often pondered the matter. Then it came into his head that, if bodies and their internal parts were at perfect rest, or were moved always

[1] 'Vit. carm. exp.' (L., i. p. lxxxix).
[2] 'Vita' (L., i. p. xx).

in the same way, there could be no distinction of anything, and consequently no sense. The cause of all things must therefore, he presumed, be sought for in diversity of movements; and starting from this as a first principle, he was driven to geometry for insight into the nature and modes of motion. Unfortunately no place or date is given for this occurrence, or can be exactly determined. Hobbes might have been drawn into such a line of thought by Bacon's mechanical theory of the qualities of matter many years (ten or fifteen at least) before the time of his third journey, but everything in the story itself and in his history up till now bears against that supposition. The mention of geometry, for example, so far from justifying any inference to a date before 1629, is, when taken along with the fact of his actual introduction to Euclid, almost decisive the other way: he must have known something of geometry to understand its uses. Moreover, two of the biographical narratives would represent him as not taking the new mental step till abroad for the third time.[1] Conclusive, however, as all this may be against the supposition of an interest in the mechanical explanation of nature reaching back into the earlier period of his life, there is nothing in the last statement which should exclude a third account, according to which he now began to study the doctrine of motion more seriously, being interested in it before;[2] and as he claims more than once in his works that he had arrived at a theory of light and sound as far back as 1630,[3] we seem driven to assign the company-scene and the later inspiration to the second journey rather

[1] 'Vita;' 'Vit. carm. exp.' [2] 'Vit. Auct.' (L., i. p. xxviii).
[3] L., v. 303; E., viii. 468.

than to the third or to the years between them. The scene probably did occur no long time after the scientific spirit was roused within him by the sight of Euclid. It was but another mental awakening after the first; though, being less easily followed up by private study, especially till some advance were previously made in geometry, it may well have led to little result till the new journey abroad set him again in contact with active scientific workers.[1]

At all events, upon the third journey, the time at last had come when he could appreciate the great scientific

[1] The complexion of the case is somewhat altered by a tract to which Herr F. Tönnies has first called attention ('Vierteljahrssch. für wiss. Phil.,' iii. 4. 463), in the volume of Harleian MS., 6796 (Brit. Mus.), which is bound with the title "Philosophical Tracts, collected by Thomas Hobbes." This Tract, No. 26, doubtless in Hobbes's handwriting, but otherwise giving no account of itself, presents a theory of Sense and other mental processes (especially Appetite) that has much in common with his later thought, but at the same time involves a form of that scholastic doctrine of sensible species which he afterwards rejected so vehemently. Supposing it Hobbes's own work, the question arises when it can have been written. If he had really, as he claims in 1646 (E., vii. 468), arrived at his thoroughgoing mechanical theory of Sense about the year 1630, the tract must be thrown back to some earlier time; but it is impossible then to understand the mathematical form in which the exposition is cast, since he knew nothing of geometry before 1629. It is much more probable that the tract represents his view when he was first feeling his way in the years after 1629, and that his memory in 1646 was not very exact; indeed, the other reference to 1630 (L., v. 303) is made in terms that may possibly apply to this very composition. In any case, the tract marks a very curious stage in Hobbes's intellectual development. The indications of his later way of thinking are too marked to leave open the other supposition that it is not an original piece but a transcription like some others in the volume (papers by Galileo, Descartes, &c.) It may be added, that the volume includes many tracts that are neither "philosophical" nor such as can have been "collected" by Hobbes.

discoveries of that generation, and understand the men that had made them. The patriarch Galileo had the first claim upon his homage, as the discoverer of the laws of motion, and now it was freely paid. Already past seventy, the great Tuscan, though he had still a few years of life before him, was bending under the weight of affliction. Working always, he had kept silence, under the warning of the Church, for many years, till in 1632 he ventured again to speak in his famous 'Dialogue'; when the Inquisition dragged him to Rome, and after extorting the recantation sent him back, at the end of 1633, to his villa at Arcetri, near Florence, still a prisoner of the Holy Office. There, upon the loss of his daughter in 1634, a painful infirmity, and, in a year or two, total blindness, came to embitter further his last days. It was before this supreme calamity befell him that Hobbes must have seen him at Florence in April 1636, if not in the previous year. Admitted to close intimacy with the aged discoverer, he conceived and always retained the profoundest respect for the man "that first opened the gate of natural philosophy universal."[1]

Round Galileo was grouped a host of active disciples, and in other towns, especially in Pisa, his native place, were men ardently pushing forward the new physical science, or seeking to make wider philosophical application of its principles, like Hobbes himself. With one of the most distinguished of these last, Berigardus, professor of philosophy at Pisa, it can be proved that he entered into special relations.[2] But it is to Paris that he

[1] E., i. p. viii.

[2] Hamilton gives the main facts (Reid's 'Works,' 890 b. n., 898 b. n., 991 a.), but errs in supposing that Hobbes was specially beholden to Berigardus's 'Circulus Pisanus'—which did not appear till 1643.

must be followed before he can be seen fairly launched upon his henceforth characteristic line of thought and inquiry. There, with his ideas well matured by meditation and converse in Italy, he was at once received into the busy scientific circle held together by the genial influence of the Père Mersenne. Born in the same year as Hobbes, Marin Mersenne was at La Flèche a senior student during part of the time when Descartes was there a precocious boy. Having passed to the Sorbonne and taken the habit of the Minimi of the Franciscan order in 1611, he met Descartes again in Paris, and helped to win the youth back to study from the gay life of the capital. Then he was sent away by his provincial to give instruction in philosophy at Nevers, and it was not till 1619 that he returned to Paris, to live as conventual in a monastery near the Place Royale. From that time, without prejudice to his reputation for strictest orthodoxy, he gradually assumed his later character of eager physical inquirer and godfather to every new discovery in Paris. Though bound to Descartes by ties of the most unchanging fidelity, and acting as his "plenipotentiary" in Paris—no sinecure post—when the philosopher went to seek out solitude in Holland, he was, none the less, all the time, in perfect good faith, the friend and confidant of Descartes' scientific foes. A straightforward, simple-minded man, ready to enter with the most kindly interest into every project that bore the faintest promise of scientific fruit, he was, for a long term of years, in the republic of intellect like the heart in the body. Besides taking his own share of work, he apportioned tasks to his friends all round, and had his word of encouragement always ready when there was need. If he saw a dis-

coverer shy or backward in giving his ideas to the world, he would incorporate them in some book of his own, carefully making known whose they were, and thus, by exciting curiosity in them, force on their publication. Such was the man who now gave to Hobbes the most friendly welcome, and introduced him to the coterie of scientific men actively at work in Paris. All that he had thought out in the course of his journey or before was now made the subject of daily discussion; and, in prospect of a novel extension of physics, Mersenne had nothing but approval to bestow. It was then that Hobbes passed into the ranks of the "philosophers." He was touching his fiftieth year.

He returned home in 1637 with his head full of philosophical projects, or rather one great project to construct a universal system of philosophy. Though the scientific spirit had awoke late within him, the early ambition that had made him a scholar when he might have been an idler, was there to spur it into ardent exercise; and if the scholarly studies left him not too well prepared for some parts of his new work of inquiry, there was at least the old political anxiety to determine his whole speculative endeavour to an effective practical issue. It is not doubtful that by this time he had formed in his mind that general scheme of knowledge to which his chief philosophical treatises are accommodated. The scheme in itself is not the least of his achievements. It happens, however, even in the systematic treatises, to be overlaid or complicated by reason mainly of the political events that more than inverted his plans of publication; while in other works by which he is better known—works extorted from him by the same pressure

of external circumstances—it is not made prominent. The more necessary is it now, at this true crisis of his life, when at last he has become a philosopher and before his thought has acquired a passionate political bias, to see what it is that as a philosopher he designs to achieve. So we shall best understand what in the troubled years before him he was able actually to accomplish.

CHAPTER IV.

PHILOSOPHIC PLANS (1637).

THE year 1637, which saw Hobbes finally embarked on the construction of a general philosophical system, was otherwise remarkable in the history of human thought. Then appeared that 'Discourse on Method' which gave the first revelation of the ideas that had been fermenting for some twenty years in Descartes' brain. From the year 1629, at the age of thirty-three, Descartes had withdrawn into seclusion in Holland to give himself wholly to the working-out of his new thoughts in science and philosophy. In 1633 he had completed an exposition of his physical system, when the news of Galileo's fate came, to touch him on the side of his love of peace and conscientious or assumed respect for ecclesiastical authority. He kept back the work ('Du Monde'), and not till 1637 was the world admitted to any part of his secret. With beautiful simplicity he then told the story of his youthful scepticism, deepening till it reached despair; of his final resolve to break with the past, and by a new method work out a system of certain knowledge; of years then spent in gathering experience and essaying his powers, before he would dare to enter seriously upon the task.

An indication of his universal method and its chief philosophical consequences—followed by three treatises showing its application to special scientific inquiries in geometry, optics, and meteorology—completed the disclosure. While Hobbes had been slowly learning the meaning of science, and not till the age of fifty had his thoughts at command for beginning original work, Descartes at forty had the thought of a life behind him, and was able to prescribe the lines of philosophical speculation for generations to come.

Before Descartes' prime, however, and without his aid, there had sprung up, in the first generation of the seventeenth century, the modern science of physics, then passing under the name of the New or Mechanical Philosophy. Earlier philosophy — both the genuine Aristotelian doctrine and whatever passed as such at the different stages of medieval thought—had always included an explanation of the physical world, and withal one so comprehensive that by its side the positive experimental discoveries of such a scientific genius as Archimedes were little regarded when they were not, as in the later ages, wholly unknown. When, then, after an interval of portentous length — more than sixteen centuries — the work of Archimedes was resumed, and soon a new physical theory of indefinite extension began to be disclosed, it naturally claimed the same high title of universal doctrine as the old philosophy. That laws of motion experimentally established were the true principles of all physical occurrence and were to be applied to the explanation of nature under the still more general principles of mathematics, was the great and fruitful idea

of Galileo whence sprang the whole of modern physics. The new doctrine took the name of Philosophy the more readily, because it had been discovered after the revival of letters that, however it might be with Aristotle and Plato, other Greek philosophers, earlier and later, like Democritus and Epicurus, had based their whole theory of the world and man upon a physical consideration of moving atoms. It was in the spirit of such mechanical philosophy or physical science that Hobbes now began to think. We may compare his thought with Descartes', but the impulse came to him from the physical reasonings of Galileo.

So far as the physical world itself was concerned, Galileo's idea, which had already, in the first years of the seventeenth century, been taken up by many scientific workers, was fully accepted by Descartes. Through Galileo, or independently, Descartes was convinced that all physical facts and processes were to be interpreted as purely mechanical—as local arrangements and rearrangements of moving matter. Descartes, however, as the world was now at last learning, did not conceive of any physical doctrine but as part of a far wider and more deeply grounded system of general knowledge; reverting in this to the traditional conception of philosophy. And thus was it also with Hobbes, who, in a fashion of his own, could be content with nothing less than a universal system of human conceiving. But while Descartes, starting from the subjective point of view, made it his first care to understand the relation of nature to mind, and so began the more strictly philosophical movement of modern times, Hobbes, immersed in objective consideration, is to be called a

philosopher chiefly because of the comprehensiveness of his scientific survey, and its practical direction to the guidance of human conduct.

Whenever it may have dawned upon him, the thought that sensation and all mental states thereon depending are explicable as peculiar motions in the human body, determined by motions in other bodies, took Hobbes at once beyond the field of investigation to which the so-called mechanical philosophers, in the first instance at least, confined themselves. It did not take him beyond Descartes, who, within the sweep of his philosophical thinking, was also led to conceive of sensation and its consequences in terms of motion. But because Hobbes thought that the consequences of sensation involved all possible mental occurrence, and, beyond this, whatever could be shown to depend on the mental constitution of man, especially the social relation among men, he was drawn into an entirely different line of general consideration. For him the philosophic task consisted in no ultimate rendering of being from the side of thought, but in the orderly interpretation of Nature and Society upon plain phenomenal principles. Phenomenally regarded — and otherwise it could not, in the view of Hobbes, be regarded as object of science — the world consisted of *natural* bodies (inanimate and animate) and of *political* bodies, organised aggregates of living men. To explain all natural phenomena, including the mental manifestations of animals and men, and all social phenomena depending on the mental nature of men, and to do this with unity of method from universal principles, was in his view to fulfil at once the whole demand of

what might be called indifferently Science or Philosophy. Natural Philosophy and Moral—or, as he generally preferred to consider it and call it, Civil—Philosophy remained for him, as it had generally been before him, the primary division of the whole ground to be covered by one and the same thinker. Only, he recognised no other way of working into the nature of things than that upon which the new physical inquirers had entered, in revolt from the metaphysical principles of Aristotle and the Schoolmen; while such insight, and no other, it seemed to him, might avail to direct aright the action of men.

With such a view of moral application to be made of natural science, Hobbes shows the spirit of the philosopher no less in the depth of the foundations he first lays for the knowledge of nature. Though he only incidentally touches the deepest question of all, as to the relations of being to thought, and was not, like Descartes, at a standstill so long as that remained unsolved, he was not prepared, like the modern "man of science," to take up straightway with nature in the purely objective attitude of common life. Before any statement of the principles of magnitude and motion to be used in explanation of the world of nature, he held it necessary to have an express discussion of the most general conceptions of science; and such discussion, which, after Aristotle, he called First Philosophy, he, again with Aristotle, would preface by Logic as a doctrine of reasoning and method. Indeed he had only to conceive and carry out such a scheme of natural philosophy with sufficient thoroughness to accomplish more, at this turning-point in the intellectual history of the race, than

even Descartes essayed. But the performance came short, while still remaining sufficiently remarkable to give him a permanent distinction.

Hobbes himself, indeed, was so little disposed to magnify the importance of what we may call the philosophical foundations of his science of nature, or, from the other point of view, the foundations of his whole philosophical system, that he found one title, "On Body," sufficient to cover all the more general preliminaries, as well as his mathematical and physical doctrines. His use of the word "Body" instead of "Nature" for the first division of his system is, however, of chief interest as marking what is undoubtedly its most important feature. Body is, with Hobbes, not opposed like Nature to Society, but is the first term of a series leading up to Society or the State through Man. Man, since his nature contains the ground of civil institutions, stands out from among all other natural bodies. The State is not simply to be viewed in its existent form as body politic, but rather as it comes into being—the product of human wit for the satisfaction of human wants. Thus, between Nature and Society the bridge is Man; and hence the profounder disposition of the whole work of the philosopher as a progression from Body (which remains natural) through Man to Citizen. It was from this point of view that Hobbes now planned three systematic treatises—'De Corpore,' 'De Homine,' 'De Cive,'—to be worked out in orderly succession. No other man of that time rose to such an idea of progressive scientific explanation, and we hardly find it again so distinctly conceived and seriously carried out till we come to Comte and other thinkers in the present century. The

idea does not more distinguish Hobbes from the class of metaphysical philosophers than it makes it impossible to connect him with that school of psychological thinkers, beginning with Locke, that has shed special lustre on the English name. Hobbes stands apart in his country and his time, a philosopher of large constructive ambition, yet one who confined his thought to the world of experience and was moved by the most directly practical purpose. If the words seem no less applicable to his predecessor Bacon, a difference still remains. Hobbes was no mere surveyor and planner for others, but an actual builder upon an original scheme of his own.

Among systematic thinkers of comparable range, he succeeded more nearly than most in leaving not unsaid all that appears to have been in his mind; yet this was not because he was able, in the maturity of his slowly developed powers, to work out steadily the plan which, at least as a plan, he had now fairly before him. Never did human purpose become more the sport of outer events. How the execution was carried through with perfect irregularity, involved no slight modification of his thought at critical points, included new undertakings, one of them the main achievement of his life, and all because of the Revolution that intervened,—it belongs to the history of the next twenty years to tell. It is impossible, supposing it in any way profitable, to guess what course Hobbes's activity might have taken in all the many years of intellectual vigour still before him, if he had been left undisturbed to work out in shorter time the orderly sequence of his ideas as it now had taken shape within his mind. The Revolution did intervene, and the actual effect on his work and his life

is what has here to be traced. Time after time he had to put the 'De Corpore' aside, in order to set forth his political doctrine, or rather to create a theory to meet the stupendous national crisis; and when at last, fourteen years later, he found it possible to put together the fundamental treatise of his philosophic system, he could no longer expect—the author of 'Leviathan' was far from being in the mood to crave—indulgence for his attempt to grapple with the great generalities of human thought.

CHAPTER V.

THE REVOLUTION (1637-51).

HOBBES came home from his third journey abroad in 1637, about the time when Charles and Laud, hard driven for supplies, took courage from an opinion of the judges to impose a general exaction of ship-money, and were met by Hampden's refusal to pay the twenty shillings demanded from him. "Mark the oppression; a Parliament-man of £500 a-year land-taxed at 20s.!" is Hobbes's later sneer;[1] and at the time a philosopher, newly returned, with his mind running on the principles of motion, and anxious for nothing so much as to have quiet in and around him when working out his ideas, might not see the case in any other light; but amongst the people, who had been smarting under the yoke for eight years, and were not philosophers, the excitement during the protracted trial that ensued was intense, and the king and the archbishop were little at their ease.

In time (April 1638) they were comforted by the decision of Westminster Hall, giving them leave to exact ship-money, or, for that matter, anything they pleased, till the patience of the people should end; but

[1] E., vi. 209.

meanwhile another venture, to which they had committed themselves, was having no such manageable issue. The riot at Edinburgh that had greeted the attempt to read the new liturgy in July 1637, had led to formal protest which, in the spring of 1638, took the shape of the Covenant. In 1639 concessions were extorted from the king by a Scottish army in the open field, and yet again, at the end of the same year, there was a new prospect of war. Hobbes is of opinion that the English people never could have been brought to support the Parliament in the Civil War, but for the diabolical art with which the Puritan leaders made their profit out of the king's difficulties in this "unlucky business" of the Scottish Prayer-book, forcing him to take up false positions and goading him into acts of rashness.[1] Be this as it may, the turn of the Puritans at last had come. Ship-money and other exactions being no longer possible or sufficient, in April 1640, after eleven years of autocratic rule, the king was reduced to asking for war-supplies from a Parliament.

Distraction of this kind, grown so intense and persistent, it was not in the nature of Hobbes to withstand. Continuing to live with the young Earl of Devonshire, after the course of training was ended in 1639, he mixed in the society of Lord Falkland, Hyde, and the others who, later on, formed a *tiers parti* in the State—men whose concern in every change of the political scene was deep and anxious. For himself, he was an old political observer, with fears that may have become lulled but were only too easily revived; and, having always for his last and highest aim to

[1] E., vi. 198.

become a political teacher, he could not shut his eyes to the need, growing every day more pressing, that a teacher should appear. One thing, accordingly, is not doubtful, however it may be impossible to trace in detail the effects wrought upon his mind by the progress of events—that they soon became too much for his philosophic resolution.

The general result is told in a statement prefixed, in 1646, to the first-published of his original works, the 'De Cive.' He was labouring, he says, quietly at his appointed task, when "some few years before the civil wars," the state of the country, "boiling hot with questions concerning the rights of dominion and obedience due from subjects," forced him to defer the exposition of his doctrines of Body and of Man, and "ripened and plucked" from him the political section of his philosophical system.[1] This statement is at fault only as it seems to imply that the 'De Cive' itself was the first work extorted from him. Another statement, of much later date (1662), gives more exact information, if not of the progress of his philosophical enterprise, at least of his actual occupation about the time when Parliament assembled in April 1640. Seeing, he says, in that Parliament, the peace of the country and the safety of the king endangered by attacks on the royal prerogative, he wrote "a little treatise in English" to prove that the powers and rights called in question were inseparably annexed to the sovereignty, which was not then denied to be in the king; of which treatise, "though not printed, many gentlemen had copies, which occasioned much talk of the author, and, had not his Majesty dis-

[1] L., ii. 150; E., ii. p. xx.

solved the Parliament, it had brought him into danger of his life."[1] Now there can be no question that this "little treatise" was made up of the two parts published separately, ten years later (1650), under the titles 'Human Nature' and 'De Corpore Politico.' Prefixed to the 'Human Nature' is a dedicatory epistle which refers rather to the subject of the 'De Corpore Politico,' and addressed as it is "to the Earl of Newcastle, governor to the Prince his Highness," bears the date, May 9, 1640. This, with various indications in the body of the two small books, would suffice to prove that they were written originally as one work in the spring of 1640, and so to identify them with the "little treatise," which Hobbes declares gave so much umbrage to the Parliament then sitting. But the fact is placed wholly beyond doubt by the preservation of various MS. copies combining the two parts under one title of 'The Elements of Law, Natural and Politique,' while the copy at Hardwick Hall has the common dedicatory epistle in Hobbes's own hand.[2] Thus it is made clear that, within three years of his coming home, he had not only given such shape to his political system as it has in the 'De Corpore Politico,' but had also wrought out his doctrine of Man (in the 'Human Nature') almost as far as he was ever able to carry it. The political doctrine was not so "plucked" from him now, or later in the 'De Cive,' as that he had not been able first to base it, as his philosophical scheme required, on a theory of human nature; though he

[1] E., iv. 414: 'Considerations upon the Reputation, &c., of T. H.'

[2] There are three copies, with another incomplete, in the single Harleian Collection of the British Museum.

might still, in 1646, be hoping to give a more systematic expression afterwards to the first draft of this theory. That he can be proved to have advanced thus early to all his more characteristic positions in psychology as well as in politics, is a conclusion of the first importance. It did not need the actual outbreak of civil war, acting upon a timorous nature, to give him his conviction of the strength of the anti-social impulses in man, and of the necessity for an absolute political authority to repress them.

The Parliament of April 1640, which could not be brought to recognise its single duty of voting a handsome war-supply, was dissolved on the 5th of May, twenty-three days from its assembling. It is obvious, then, that if Hobbes circulated his "little treatise" while the Parliament was still sitting, it must have been composed earlier, and not, as he suggests, with special reference to the parliamentary proceedings. The one perfectly certain fact—not dependent on any late recollection—is, that the dedication was written on May 9; and this may be held to prove that, while the treatise was of still earlier date, the parliamentary debates had the effect only of stirring up Hobbes to the circulation of his views, whether privately (by manuscript copies) or otherwise. That he was in any actual danger from the resentment of the parliamentary leaders it is difficult to suppose, and it may even be doubted whether his fears were not the offspring of his fancy at a time, after the Restoration, when to have feared might be represented as a proof of devotion to the royal cause. Still, timid as he was by nature, he may possibly enough have fancied at the time that there was no safety for a

man of his way of thinking, and his conduct later in the year bears out the supposition. For when, in six months more, after one other attempt by the king to stem the advance of the Scots with such army as he could raise, the Short Parliament was followed by the Long, and members came up with so grim a resolution that in a week Strafford was impeached, it became clear to Hobbes that England was no longer the home for a philosopher. In Paris, as he knew from his correspondent Mersenne, the scientific circle was quietly busy as before. Accordingly he hurried off, "the first of all that fled," as he afterwards could boast in other days.[1] It was eleven years before he saw his native country again.

In Paris he received a hearty welcome from Mersenne, who was the more glad to see him at this time, because he had just been commissioned to collect on all hands objections (before publication) to the 'Meditationes de Prima Philosophia,' in which Descartes had now explicitly stated the mature results of his philosophical thought. Hobbes, though fresh from the exciting spectacle of the English troubles and thinking mostly of politics, was ready enough to pass an opinion on speculative novelties that had become notorious since 1637; and, being already familiar with the scientific works of that year, was even eager to enter into closer relations with their author. He quickly, therefore, put together some sixteen objections to different points in the new treatise; but as he preferred that his name should in the first instance remain concealed from Descartes, Mersenne, who was not a little proud of having secured

[1] E., iv. 414.

such an objector, in forwarding the remarks, as early as January 1641, to Descartes in Holland, introduced him simply as a distinguished thinker of the new order. Descartes, on his side, glad to be criticised by a man reputed so able, turned with zest to the objections; but his satisfaction very speedily abated. He found a critic far less ready to enter fairly into the course of his thought than concerned to propound with strong assurance other opinions of his own. The objector clearly was rapt in private speculations, and could not, or would not, place himself at the point where he might have insight into the new system. With all his desire to be criticised, Descartes was too conscious of what his thought had cost him to brook easily the patronising tone of this anonymous fault-finder. His replies soon became sharp and curt, and near the end he roundly declared he had not found one correct inference in these objections.[1] How Hobbes took the rebuff, does not appear. It was not, indeed, the only expression of Descartes' disesteem that he then drew upon himself. He had set down also certain objections to some of Descartes' physical positions (in the 'Dioptrique,' 1637), comparing them with others of his own, which he had now been elaborating for years; and in the same month of January, Mersenne, playing off a small trick on Descartes, apparently to ensure an unbiassed reply, sent them on as if they came from a friend in England. The feint was so far successful that Descartes did not suspect the common authorship of the two sets of objections, but it procured no better accept-

[1] The 'Objections,' with the 'Replies,' are given in L., v. 249-74. They were placed "Third" among the six (afterwards seven) sets published with the 'Meditations.'

ance for the second set. With somewhat less reason, Descartes became more unmistakably angry; and after some correspondence had passed with Mersenne as intermediary, bluntly declared that he would have nothing more to say to the Englishman, whose designs, he more than half suspected, could not be honest.[1] The men, it was clear, were not to be brought together.

Ready, however, as Hobbes might thus be to express himself on ultimate questions of philosophy or special points of physical science, he had been drawn too deeply into the rush of political excitement to be able to settle, even in Paris, to the work of first laying the foundation of his system in a doctrine of Body. Nor was the news that continued to come from England of a kind to reassure him; though, when the action of Parliament was directed against Episcopal pretensions, he could reconcile himself to measures, however originated, that had the effect of making the civil power supreme in all the affairs of life. "I am sure," he remarks in a letter to the young Earl of Devonshire, bearing date August 1641,[2] and referring to an incident in the Parliament's dealings with the bishops, "that experience teaches thus much that the dispute for [precedence] between the spiritual and the civil power has of late, more than any other thing in the world, been the cause of civil wars in all places of Christendom." To demonstrate the true functions and full range of the civil power from a consideration of its origin—this in the circumstances of the time seemed to him the special work, or that part of his general scheme of philosophic work, which he should first carry through. He had, as we have seen, already

[1] L., v. 277-307. [2] Given in facsimile by Molesworth.

given a limited circle the benefit of the demonstration in the form of the "little treatise," but he would now exhibit it on the larger scale of the crowning piece of his philosophical trilogy. With the 'De Cive' he accordingly busied himself throughout the first year of his exile; if we are not to understand—as is possible—that the systematic treatise had already been taken in hand when, in the previous year, he had given the slighter sketch of his political theory. What is certain is that the full presentation of the doctrine, as he conceived that it should stand within his general philosophic system, was made before the close of his first year abroad; for, when issued from the press in the course of the next year, 1642, the dedicatory epistle to his ex-pupil bore the date November 1, 1641. The backward reference, in the first sentence of the work, to a preceding section on Human Nature, indicated to readers its place in a general scheme, but is far from proving that up to this time he had made any way with that section, as he had designed to present it in a formal treatise 'De Homine.'

Though running to greater length, and written in Latin as a work of systematic philosophy, the 'De Cive' cannot be said to differ in any respect of philosophical importance from the earlier English draft of the political theory. The style is generally richer, as the matter is fuller; the difference of the human lot before and after the constitution of the civil state is more sharply pointed under the two sectional headings of "Libertas" and "Imperium"; but it is chiefly in a third and last section, "Religio," which is the least philosophical, that advance is to be noted upon the

smaller work which we now know as the 'De Corpore Politico.' Here he enters much more minutely than before into the question of the Church in relation to the State. The impending catastrophe in England, so long prepared by religious differences, forced upon him the conviction that civil peace could be assured only as the sources of religious strife were dried up; and this consummation, as it seemed to him, could be attained only as it was shown, by an exhaustive consideration of Scriptural passages to which all were ready to appeal, as well as by the reason of the case, that the sovereign power in the State is to be held as not less absolute in ecclesiastical than in secular affairs. The germ of this most distinctive tenet of Hobbes's is also to be found in the treatise of 1640; but here, if at any point since then, his opinions were developing with the progress of events, and even in a work professedly philosophical he could not refrain from displaying his feelings of the hour. In truth, however, the whole of his political doctrine, in either of the expositions it had now received, has little appearance of having been thought out from the fundamental principles of his philosophy. Though connected in the one case with an express doctrine of human nature, and in the other referred to such a basis to be afterwards supplied, it doubtless had its main lines fixed when he was still a mere observer of men and manners, and not yet a mechanical philosopher. In other words, his political theory is explicable mainly from his personal disposition, timorous and worldly, out of all sympathy with the aspirations of his time. We may expect to see it grow still farther as events unfolded themselves.

It is, in any case, somewhat remarkable that Hobbes, when he had yielded so far to the pressure of events as to elaborate the political superstructure before he had formally drawn the ground-lines of his system, should not have been more anxious to give publicity to ideas that he considered of such immediate practical importance. Though the 'De Cive' was printed in 1642, so few copies were struck off that Gassendi declares they excited rather than satisfied thirst.[1] Being in Latin, the book could not well serve as a political manifesto; and we can only suppose that it was first written because, however he may have been drawn into providing a philosophical basis for his political thought, the practical interest, as it had awoke earliest, was always uppermost in him. His contemporaries, too, could not but acknowledge his mastery in the political field. Not only were Mersenne and other members of the Paris circle proud of their associate's achievement, but even Descartes was constrained to allow that if, as he suspected, the author of the 'De Cive' were the same that urged the 'Third Objections' against the 'Meditations,' his ability in morals was far greater than in metaphysics or physics.[2]

Having discharged his mind, to whatever purpose, of its political burden, Hobbes now busied himself for some three years or more with his general philosophy. The Civil War, which no reasoning could any longer avail to stop, broke out finally in August 1642; and while King and Parliament, with varying fortunes, were locked in

[1] 'Vit. Auct.,' L., i. p. xxxiii. The book was printed at Paris, in quarto size, under the title 'Elementorum Philosophiæ Sectio Tertia, De Cive.' Copies are very rare: one (which belonged to Selden) is in the Bodleian, another is in Dr Williams's Library in London.

[2] Baillet, 'Vie de Descartes,' ii. 174.

struggle, the philosopher remained quietly at work among the scientific inquirers who met for informal discussion in Mersenne's monastic cell (near the Place Royale).[1] In 1644, and under the wing of Mersenne, he came first into public view as a physical investigator of the new school, but also as one who was concerned to drive the new mechanical principles to psychological and ethical conclusions lying beyond common scientific apprehension. A compressed statement[2] then inserted in the preface to Mersenne's 'Ballistica' gave, with some variations, the main points of his scientific doctrine of Human Nature, as it had been already written out, more at length, and privately circulated in the spring of 1640. At the same time a short 'Tractatus Opticus,' printed as corporate part of another work of Mersenne's,[3] set out his view of Refraction in accordance with the strictly physical theory of light to which he had been making way ever since 1630.[4] His scientific pretensions were so far recognised, that when, in 1645, a noted English mathematician of that day, John Pell, at Amsterdam, fell upon the Danish astronomer Longomontanus's quadrature of the circle, he was sum-

[1] L., iv. 242. [2] L., v. 309-318. [3] L., v. 217-48.

[4] During all these years he was more especially engrossed with optics. There is included in the MS. volume, mentioned in a former note (p. 35), a considerable treatise in Latin (No. 22) covering the whole ground of optical science, which, though written in another hand, bears his own corrections and is clearly his work. He followed it up, by 1646, with another in English, 'A Minute or First Draught of the Optiques,' in two parts (Illumination, Vision), which is also in the Harleian Collection of MSS., 3360. The second part of this he afterwards turned to account in the 'De Homine' (1658). Molesworth prints from the original only the Dedication to Newcastle and the concluding paragraphs (E., vii. 467-71).

moned among such experts as Descartes, Roberval, and Cavalieri to give judgment between the opponents. Ten years later came his own time to be judged for the sin of circle-squaring.

With the leisure and opportunities he had in Paris, he had by 1645 gained such command over his diverse materials that he might now at last have begun the composition of his fundamental treatise 'De Corpore,' when once more the political distraction became too strong for him, and did not leave him free to resume his philosophical enterprise till six years more had passed. While he had been quietly busy in Paris over problems of magnitude and motion, far other problems were being solved by the sword in England. At first it seemed as if the king might prevail in the strife; but in time a parliamentary army was formed with an irresistible spirit of religious enthusiasm, and the royalist power, struck down at Marston Moor in July 1644, was finally shattered at Naseby in June 1645. At whatever safe distance himself, and even without his general political anxiety, Hobbes had too close personal relations with many of those who were foremost in the struggle, to remain unmoved at any of its stages. His young master, marked by Parliament for devotion to the king before the war, had ceased, on its outbreak, to take any active part, and gone abroad; but the earl's brother Charles, a gallant youth, threw himself with singular ardour into the fight, and fell an early victim to the prowess of Cromwell's troopers. In the same year, 1643, his friend Lord Falkland perished at Newbury. Another friend, Sidney Godolphin, who left him a legacy of £200, was killed among the first

"by an undiscerned and undiscerning hand."[1] Newcastle (now marquis), who commanded at Marston Moor, was the patron to whom his earliest treatise had been addressed. The defeated commander, being forced to fly the country, found his way, after various wanderings, to Paris in 1645, preceded or followed by many other fugitives; and by contact with these it was that the philosopher was again drawn into the political whirl.

Soon he was in such a state of mind that he could not rest or do other work till he had delivered himself, as he had never yet effectively done, of the message he long before conceived he had to bring to his excited countrymen. The 'De Cive' was known only to the learned few whom it had reached when it was printed rather than published in 1642. The MS. copies of the earlier sketch of his political theory and view of human nature were locked up in still fewer hands, and the sketch, besides, had touched but slightly on the religious question that was really at the bottom of the political differences that had rent asunder the fabric of the English State. An English book that all could read, but a comprehensive book, and one going to the root of the matter, so as to show the true and only way of lasting civil peace, by constituting the secular power absolute over every other in all departments of the active life of men,—this was the need of the time which Hobbes set himself now to meet. 'Leviathan' was the result, but it was not achieved till 1651, and when achieved it bore traces of having been moulded by all that happened in the interval. More immediate evidence of Hobbes's revived interest in politics ap-

[1] E., iii. 703.

peared in a new, and this time more genuine, publication of the existing treatise, 'De Cive.' This he gave in charge, early in 1646, to his admirer the French physician Sorbière, after he had inserted in the book a number of notes in answer to objections, and supplied a weighty "Preface to the Reader," giving the first distinct public intimation of the relation in which the treatise stood to a general philosophical scheme, and explaining the occasion of its appearance out of due order. The book in its new form was seen through the Elzevir press by Sorbière, and came out at Amsterdam in 1647.[1]

During most of the time till 1651, Hobbes remained in or about Paris. We find him about the beginning of 1646 at Rouen (where he wrote his tract 'Of Liberty and Necessity,' printed eight years later, and then leading to a great contention that will claim due notice), but this may have been only a flying visit. Later in the same year, however, he had so much lost hope of being able to return home, and was apparently so much straitened in his means, that he was just about to change his whole manner of life, and take up his abode with a French friend in the south,[2] when it was put in his power to remain in the capital as mathematical instructor

[1] L., ii. 133-432. The title was now changed to 'Elementa Philosophica de Cive:' the date of the Dedication from 1641 to 1646.

[2] Called "nobilis Languedocianus" in 'Vita,'—doubtless the "Verdusius" to whom the 'Vit. carm. exp.' is addressed, and the 'Exam. et Emend. Math. Hod.' (L., iv.) is dedicated. Du Verdus was a profound admirer of Hobbes, and many letters of his are preserved at Hardwick. A translation of the first two parts of the 'De Cive' by him appeared at Paris in 1660, under the title 'Les Elemens de la Politique de Monsieur Hobbes.'

to the young Prince of Wales, who, having left England some months earlier, came over from Jersey with a large retinue in the summer of 1646. How much he was employed, or how long the engagement lasted, does not appear. It can in no case have been prolonged beyond the spring of 1648, when the prince removed to Holland, and probably it was terminated much sooner by a dangerous illness that overtook Hobbes in 1647; but it procured him the lasting favour of the prince, who could afterwards protect him as king. It also, by bringing him into close association with the chief victims of the Civil War, must have helped to keep him to his new task of political composition. How this used to go forward is told in one of Aubrey's characteristic jottings: "He walked much and contemplated, and he had in the head of his cane a pen and ink-horn, carried always a note-book in his pocket, and as soon as a thought darted, he presently entered it into his book, or otherwise might have lost it. He had drawn the design of the book into chapters, &c., he knew whereabout it would come in."[1]

One or two incidents of some biographical interest are related by himself of the illness, a fever, to which he nearly succumbed in 1647. He lay at St Germains, near Paris, and his case having become, as was thought, hopeless, he was visited by Mersenne, at the request of a common friend who sought to win him before death to the Church of Rome. Standing by the bedside, the kindly father (so near his own painful end) began with words of consolation, and then went on to speak of the Church's power of absolution. But Hobbes broke in:

[1] 'Life,' 606, 607.

"Father, I have debated all that with myself long ago, and have no mind to discuss it now; you can entertain me better. When did you see Gassendi?"[1] Mersenne took the hint, and changed the subject. However, this only showed Hobbes's determination not to become a pervert, and did not mean that he cared nothing for religion. For, some days later, when Dr Cosins, afterwards Bishop of Durham, came and offered to pray with him, he gladly consented, on condition that the English Prayer-book were used, and also received the Sacrament.[2] Long afterwards, when the clergy had turned against him, and were branding him as atheist and heretic, he proposed that the question as to the sincerity of his faith should be referred to the bishop.[3]

How he fared upon his unexpected recovery, there is little to show for the next year or two. He could not

[1] Gassendi (1592-1655), the chief rival of Descartes in the public eye at this time, had come to Paris in 1645, as professor of mathematics in the Collège Royal, from Digne, where he had held a post in the cathedral for many years back; he had also been in Paris for some weeks in 1641. Hobbes and he became close friends, and had the highest opinion of each other (see L., i. pp. xxxiii, lxxvi; v. 307); but it is a mistake to suppose that the reviver of the Epicurean philosophy can have exercised any special influence on Hobbes: the famous works, 'De Vita et Moribus Epicuri,' and 'Syntagma Philosophiæ Epicureæ,' did not appear till 1647 and 1649.

Aubrey ('Life,' 626 n.) reports: "I have heard Mr Edm. Waller say that W. Lord Marquis of Newcastle was a great patron to Dr Gassendi and M. Des Cartes, as well as Mr Hobbes, and that he hath dined with them all three at the Marquis's table at Paris." This can only have been in the summer of 1648, when Descartes made his last visit to Paris, and became reconciled to Gassendi after the estrangement that grew out of controversy over the 'Meditations.' Hobbes may also have met Descartes, on a previous visit, in 1644.

[2] 'Vita' (L., i. p. xvi). Aubrey ('Life,' 631) gives the story another turn. See also the letter, E., vii. 464.

[3] L., iv. 303.

long enjoy the old scientific converse, the circle about Mersenne having begun to show mournful blanks before it was broken up—in September 1648—by the death of the father himself. But he had sufficient occupation in writing his great book, which grew under his hand, as the Revolution advanced, into something he can hardly have foreseen. The growing ascendancy of the Independents in Parliament by help of the army, and the final collapse of the Presbyterian party after the Scots' abortive attempt in 1648 to replace the king in power, led on to the dread act of 1649, which changed the whole aspect of affairs. Later in the year we find Hobbes passing into a mood that seems new. Writing then to Gassendi, he lets drop the remark—"For my age [past sixty] I am well enough, and take good care, reserving myself for return to England, if it may be."[1] So the vehement upholder of the royal prerogative had begun to think of going home as soon as the rebel leaders had consummated their revolutionary work by taking the life of the king. No sooner did the dominion of the Rump (or rather of the army) seem fully established, than the chief witness against the arts by which it had triumphed began to desire its protection. Was there here no change of temper? Perhaps; yet there might be reason for his wish to return in the very hopelessness of the royal cause, while the sureness of its enemies' triumph opened for him too tempting a prospect of speculative freedom.

Firmly held before he had grounded it scientifically, Hobbes did not dream of surrendering his doctrine of state and sovereignty; but he was of a nature too practical to shut his eyes to accomplished facts, and, as

[1] L., v. 307.

a philosopher, he was also too much interested in the theoretic aspect of political events to view the government of the Rump, now that it was there, only as an object of enmity and hate. Eagerly as he had supported the monarchy, willing in the enjoyment of its protection to bear its shackles that left him free to accomplish the philosophic designs he had at heart, he could not but see that this new government, not less powerful to protect, held out to him, whether in spite or by reason of its origin, an opportunity of free speech on subjects that otherwise were sealed. While his political views, as he had always declared, were not those of a common royalist partisan but had a truth and a value under any form of sovereignty, he knew that, except under conditions of social and political unsettlement as in England, he hardly could venture to stray beyond his philosophical scheme into the field of religious dogma. To have, in propounding his doctrine of the place of religion in the State, the advantage of free expression upon forbidden subjects which he had deeply considered, it seemed little in him, a private citizen and solitary thinker, to face the question of transfer of the subject's allegiance from a government overthrown to a new power erect upon its ruins; and the rather, as he had no idea of abandoning his view that monarchy was incomparably the best government, and rebellion (though it now gave him the chance of declaring how it might be prevented for evermore) the most heinous of crimes. Not, therefore, with any thought of turning renegade, as his enemies afterwards asserted, but also without pretending to himself that he was doing the exiled prince a service, as he was fain afterwards to represent in his

defence, Hobbes, anxious for personal reasons not to remain longer abroad, was, I conceive, eager also to seize, in the chaos of public opinion, the opportunity of publishing his plans of reform in Church and State, and in that view might well be willing to accept as a fact the revolution against which he had honestly striven. There are many signs in 'Leviathan' of this effect on Hobbes's mind of the progress of events.

Arrived thus far in 1650, he allowed or caused to be brought to light that earliest work in which, years before it came to civil war, he had not only drawn with firm hand the ground-lines of his political doctrine but founded it in the nature of man. It was now printed in two distinct parts: the one, under the title of 'Human Nature, or the Fundamental Elements of Policy,' prefaced by a publisher's notice representing it (incorrectly) as companion-treatise to the 'De Cive'; the other, later in the year, under the title 'De Corpore Politico, or the Elements of Law, Moral and Politic.'[1] Next, in 1651, as if to pave the way more expressly for the greater work at last completed, he issued a most vigorous translation of the 'De Cive' itself, as 'Philosophical Rudiments concerning Government and Society'; and so gave his countrymen the means of comparing with all that he had previously thought out the wider and bolder view of human and social life to which the last years had brought him.[2]

[1] The 'Human Nature' (E., iv. 1-76) includes cc. 1-13 of the first division of the original treatise. The remaining six chapters of that division stand now as Part i. of the 'De Corpore Politico' (E., iv. 77-228); Part ii. corresponds with the original second division of the whole work.

[2] E., ii. Aubrey ('Lives,' ii. 566) mentions that Edmund Waller the

The printing of 'Leviathan' went on in London during the winter of 1650-51. About this time his old friend Hyde (back in Paris from a vain mission to Madrid for help) saw Hobbes often, and tells how, on one occasion, early in 1651, he was shown some of the sheets and the dedicatory epistle to Francis Godolphin, who had duly discharged his brother Sidney's dying bequest. A curious conversation then passed. Hobbes said that he knew Hyde would not like the book when he had read it, and mentioned some of its points; whereupon, says Hyde, "I asked him why he would publish such doctrine; to which, after a discourse between jest and earnest upon the subject, he said, 'The truth is, I have a mind to go home.'"[1] That, after a discourse between jest and earnest, Hobbes did say something like this to the solemn royalist, is likely enough; though Clarendon, writing in a spirit of bitterness some twenty years after the event, need not be supposed to give the exact shade of colour to the incident. If, as he would suggest, Hobbes had been meditating an infamous apostasy from the royal cause, it is strange that the offender should publish his disgrace and court reprobation beforehand.

poet, who was a great friend of Hobbes's, wished to translate the 'De Cive' on its appearance, but, first asking Hobbes to begin the translation by way of specimen, would no more meddle with a task which Hobbes could perform better than anybody else.

Being intimate also with the poet-laureate, Sir W. Davenant, and appealed to for his judgment in the preface to Davenant's heroic poem, 'Gondibert,' Hobbes, early in this year, 1651 (Jan. 10, 1650), wrote and published in Paris a letter on the nature and conditions of poetry, chiefly epic (E., iv. 441-58).

[1] 'Survey of the Leviathan,' 7 (published in 1676; written by 1670; Dedication, &c., 1673).

About the middle of 1651 the book appeared.[1] The frontispiece showed a landscape: in the front, a walled town and church with lofty spires; behind, hills dotted with buildings, and at one corner the sea. Towering above the hills rose, in the background of the picture, the body (from the waist) of a crowned giant, bearing a sword in his right hand and in the left a crosier, numberless tiny figures of men being packed together to form the trunk and arms of the monster. This was Leviathan, personating the State or Commonwealth, ecclesiastical and civil, whose "matter, form and power" the book was designed to exhibit. Made up of men and by men for their defence, of this Leviathan it could be said, as of that other in the book of Job, "Non est potestas super terram quæ comparetur ei." Underneath were figured insignia, implements, and manifestations of the twofold supremacy wielded by this "mortal god," to whom under the immortal God men owed their peace and safety: on a level, and answering to each other in two rows, embattled fort and church, crown and mitre, cannon and thunderbolt, armour and the weapons of logical fence (three-pronged fork of syllogism and other forks, with the dilemmatic horns); finally the shock of arms on a battle-field, and a meeting of grave ecclesiastics in council-hall.

The book itself was laid out in four parts. The first considered "Man," at once matter and maker of Leviathan, the great artificial man. Here Hobbes set forth his doctrine of human nature anew, repeating his psychological theory of the development of knowledge, but dwelling chiefly on the passions, manners and

[1] E., iii.

religion of men by nature, before showing at the end how they might pass out of the misery of their original condition as individuals into the ordered life of society. The second part exhibited the generation of "Commonwealth," conceived more vividly than in the earlier works as a distinct entity, the product of human art indeed, but yet, when constituted, of such a nature as to have organs and vital functions like a human being, with the human liability to decay and death; this novel aspect of his political doctrine having been opened up to Hobbes partly by the growth of his conception of science (to be made constructive like mathematics), partly by his later experience of the actual dissolution of the English monarchy. In the third part, setting himself to consider with the utmost elaboration the constitution of "A Christian Commonwealth" under the rule of Scripture, he managed to insinuate the results of a long-protracted course of rationalistic criticism, with the object of barring out the spiritual pretensions of the Churches, whether Papal or Anglican or Presbyterian. The last part, under name of "The Kingdom of Darkness," after the Kingdom of God, dealt still more pointedly with the ecclesiastical sores to which Hobbes traced all civil distemper, fostered, in his view, by misinterpretation of Scripture, survival of Pagan superstitions, and errors of ancient philosophy. Finally, in the course of a short "Review and Conclusion" of the whole work, he stated his view of the duty of citizens at the national crisis of a change of government; asserting, upon grave and consistent grounds of principle, the right of an "ordinary subject" to turn to the new power that could give protection, however little he might approve of the circumstances of its origin.

The effect of the book at home will appear through all Hobbes's later years. Abroad, it soon brought about a great change in his own position. That he himself considered his personal loyalty impeached by anything he had penned, could not be more completely disproved than it is. As he had made no secret beforehand of his wish to return home, so he now showed no unseemly haste to be gone, but for months still continued to share the fortunes and mix in the society of the royalist exiles. Nay, when the young King of the Scots escaped to Paris (about the end of October) after the defeat at Worcester, Hobbes felt himself at perfect liberty to present to the royal fugitive, fresh from the crushing disaster, a specially prepared manuscript copy of his book—"engrossed" (says Clarendon) "in vellum in a marvellous fair hand"[1] —an odd proceeding in a conscious traitor. But if he thought that he still stood where he had stood before, there were others that thought differently. It is, indeed, sufficiently absurd to find Clarendon declaring, in almost the same breath with his mention of the gift to the king, that the book was written to support Cromwell's usurpation. This particular charge, afterwards commonly current though refuted by Clarendon's own admission, could not have occurred to any one so early as 1651, when Cromwell was still the servant of the Rump. Nothing, however, could be more natural than that a book like 'Leviathan' should awake suspicion and dislike in the minds of royalists, then at the lowest depths

[1] 'Survey,' &c., 8. The beautifully written and finely bound MS., now in the Brit. Museum (Egerton MSS., 1910), is doubtless this copy. Some marginal titles of paragraphs, varying from the printed ones, are in Hobbes's hand; also occasional short insertions.

of despair. The exiled clergy in particular, rendered critical by misfortune, and meeting in the book much that jarred upon their honest religious convictions, much, also, that was incomprehensible to their unreasoning loyalty, and above all, a vein of deep distrust of clerical ambition, with an imposing scheme for the utter subjection of spiritual to civil authority—could not but be affected to indignation in every fibre of their being. Accordingly, as different accounts agree in stating, some of them lost no time in working upon the mind of the prince on his return, and for the moment they were able to prevail upon his easy nature. When Hobbes, soon after making his present, sought to pay his respects in person to his former pupil, he was denied the royal presence, and was told by the Marquis of Ormond that he lay under grave charges of disloyalty and atheism. Thus deprived of the prince's protection, Hobbes, ever full of fears, at once saw himself exposed to a twofold peril. The royalist party, he well knew, counted in its ranks desperadoes who could slay—who had newly slain two defenceless envoys of the Commonwealth, Dorislaus at the Hague, and Ascham at Madrid. And there was another danger not to be slighted even by a man less prone to terror. The French clerical authorities, made aware of the contents of 'Leviathan,' and exasperated by such an open and unsparing assault (no longer a masked attack, as in the 'De Cive') on the Papal system, were moving (as Clarendon again bears confirmatory witness) to arraign the foreign offender.[1] No

[1] 'Survey,' &c., 9. But, writing close on the time (27th Jan. 165½, to Secy. Nicholas, 'State Papers'), he says: "I had indeed some hand in the discountenancing of my old friend, Mr H. . . . What

course seemed left to Hobbes but sudden and secret flight. After a self-imposed exile of eleven years, cast out in the end by his own party and a fugitive from religious hate, he could turn only to his native country which he had been so ready to desert, and seek protection from the revolutionary government which he had sacrificed everything to oppose. It was a severe winter, and on the journey he endured hardships which, shaken by a recent (second) illness,[1] he was ill able to bear. On reaching London he sent in his submission to the Council of State, and without trouble was allowed to subside into private life.

the Catholics wished, I know not, but sure they contributed nothing to that justice." With Hobbes's own accounts in 'Vita' and 'Vit. carm. exp.,' comp. E., iv. 415.

[1] In August. Guy Patin, who was called in as doctor, gives a lively account of the patient (*Lettres choisies*, under date Sept. 22, 1651). Disraeli ('Miscell. of Lit.', 267 n., ed. 1840) makes the error of connecting Patin's report with the illness of 1647.

CHAPTER VI.

THE SYSTEM (1651-58).

When Hobbes came back at the end of 1651, an old man of sixty-four, he had made himself known to all the world as the boldest and most trenchant of political speculators; but he had still to prove to the "philosophers" that none of them had been thinking with such breadth of system as he for some fifteen years past. His business was now, as swiftly as might be, to set down the whole foundations of his philosophy in the 'De Corpore,' and then in the 'De Homine' to present his doctrine of human nature in more technical form, as leading on to the foregone statement of his political theory in the 'De Cive.' He settled himself, accordingly, at once to work, remaining in London ("Fetter Lane") where he might have the advantage of intellectual society. Though he resumed his formal connection with the Devonshire household in 1653, it did not suit him, so long as he was at work, to live with the earl, who seems to have been mostly in the country till the Restoration.[1]

[1] Excluded from the House of Lords all through the Protectorate, as he had been since 1642, for devotion to the king; but unmolested,

He soon made way with his philosophical task, now that his mind was at last fully delivered of its political burden. In 1654 the 'De Corpore' was in the press, if not wholly printed. Delays intervened while he was trying to meet objections urged privately by friends against some solutions of impossible geometrical problems which he fondly thought he had found from his new principles; but the objections being surmounted, or at least, as he thought, sufficiently turned, publication followed in the middle of 1655.[1] By this time, however, he had become entangled in a vehement controversy over one of the main issues of his thought (the doctrine of Necessity), and presently the whole foundations of his system, which he fancied so securely laid in the 'De Corpore,' were rudely shaken by a conspiracy of foes. For the next two years he could describe his life only as a "fight with wild beasts at Ephesus." The still outstanding treatise of the system did not appear till 1658, and then proved to be only a nominal fulfilment of what must be supposed to have been his original design. Not much longer altogether than the old 'Human Nature,' the 'De Homine'[2] consisted, in greater part, of a number of optical chapters, turned into Latin (with some abbreviations and other changes) from the unpublished English treatise of 1646 (see p. 59, n., above). While he had determined to include in his general system of philosophy this physical excursus, representing as it did the protracted labours of past years, and to include

after submitting to Parliament, at the instance of his imperious mother, in order to save the family estates, sequestrated in 1645.—Kennet, 'Memoirs of the Family of Cavendish' (1708).

[1] L., i. [2] L., ii. 1-132.

it with the doctrine of Man (rather than of Body) by reason of the special reference it involved to the organic structure of the eye, there was added to it, without the least pretence of connection, only a short account of speech, appetite, the passions, &c., not more but less systematic than what he had already set down in the popular works. Thus, to all intents and purposes, Hobbes's philosophical performance may be said to have been completed in the 'De Corpore' at the age of sixty-seven, though he had the sense of an obligation left which he made believe he was fulfilling as late as seventy.

The story of the conflicts into which he was drawn from 1654, and which checkered all his remaining years, will best be told apart. It shows the man in a curious light, but hardly in any degree affects the understanding of his philosophical system. At this stage, therefore, we may try to gain a view of his whole scheme of thought, as he had been able, in one or other form of composition, to set it forth. The salient feature of the system, giving it also its special interest, is unquestionably its comprehensiveness. Logic, First Philosophy, Geometry, Mechanics, Physics, Psychology, Sociology and Ethics, have all a place in Hobbes's exposition. It is not much that he has to say under some of the heads, but he has something to say under all, and all that he says hangs (or is meant to hang) together. It was still the age when a man might think that he could compass the round of knowledge and determine its issues. Bacon had essayed the ordering of all human knowledge and practice—past, present, or to come—with his wide-sweeping glances. Descartes had a vision of philosophy

as like a tree—metaphysics the root, physics the trunk, other sciences the branches, with practical mechanics, medicine and ethics as the final outgrowth of all. It is Hobbes's distinction, while conceiving in the same large manner of human practice as related to a sum of human knowledge, to have been able, in some measure, to unfold his whole thought as he had conceived it.

PHILOSOPHY.

The difference, now well understood, between Science and Philosophy—that Science deals with things as they appear, while Philosophy seeks to understand the fact of their appearing—has been clearly recognised only since the special sciences began to be cultivated apart from one another. The modern way of knowledge, which supplements the manifold lines of phenomenal inquiry by an express consideration of things in their relation to mind, was prepared rather than trodden throughout the greater part of the 17th century. It is first distinctly traceable in Locke, who left the work of "advancing the sciences" to Newton and others, while himself employed in "clearing the ground a little." Descartes and his immediate followers, with all their interest in external nature, had the older notion of human knowledge as forming a homogeneous system, to be thought out by one uniform method. They were moderns in their concern for physical knowledge, but they had not the modern understanding of the limits within which the special sciences of nature were destined to make way. Philosophy and Science were to them one and the same notion, as they had been one notion to Aristotle, who was seriously, or to the Schoolmen, who

were but formally, concerned with the variety of natural things and processes. To Hobbes they are also one, and one in a sense that departs in some respects still less than Descartes' from the earlier conception. But at the same time, there is that in his thought which brings him nearer than Descartes, and that in his speech which brings him nearer even than Locke, to those who have come later.

Like Aristotle, he opposes Philosophy or Science indifferently to Experience, though it is significant to note how the word Science is with him pushing forward from its old subordinate place to rank beside or before Philosophy. By experience we have a knowledge of things; philosophy or science is knowledge of their causes. From foregone knowledge of causes to arrive at effects, or when effects are given to strike out likely causes for them—in such form he is content to pass on the traditional description of the philosopher's work; but he gives a meaning to the words that shows him to have drifted far away from the old standing-ground. His philosophy is to be concerned with "phenomena" only. To know phenomena from the manner of their generation, or to devise some possible way of generation for phenomena,—if other philosophy than this is sought for, Hobbes warns his readers to seek it elsewhere. Not of the kind that makes philosophers' stones or "is found in the metaphysic codes,"—his is but "the natural reason of man busily flying up and down among the creatures, and bringing back a true report of their order, causes and effects." This is the modern conception of Natural Science—a view of the order and relations of things as they appear, without prior question as to their

appearing. And the object is declared by Hobbes to be the gaining of power over things for human needs, which has ever been the characteristic note of positive science.[1]

Taking philosophy, then, as concerned only with things that appear as generated, Hobbes would at once get rid of the subjects that mainly exercised his Scholastic predecessors. God, as having no generation, and spirits, as having no manifest properties (or phenomenal aspects), cannot come within its scope. Philosophy has nothing to do with matters of faith, or with the facts of history, whether natural or civil, so far as they rest upon mere experience or authority. Bodies, or the affections of bodies, remain then as its only proper subject; and there being the two sorts of body, natural and civil (or politic), we have at once the fundamental division of Philosophy into Natural Philosophy and Civil Philosophy. But, as we before saw that among natural bodies there is one, Man, of quite special importance as both maker and matter of the body politic, the series—Nature, Man, Citizen—will best express the whole subject of philosophy, with the order of treatment.

Hobbes, however, in beginning with Nature before Man, and calling the first part of his system 'On Body' simply, is not really satisfied to take the natural world as he finds it, and give the best account that he can of things as they appear in their varied aspects and relations, from the point of view that we now call scientific. He does not proceed without some prior inquiry of the deeper sort that we still call philosophic, and the presence of which in such a thinker as Aristotle makes us

[1] His saying, "Scientia propter potentiam" (L., i. 6), comes nearer than anything in Bacon to the proverbial "Knowledge is power."

speak of the great natural inquirer of antiquity as a philosopher rather than a man of science. Before applying his mathematical and mechanical principles to explain the actual phenomena of nature, Hobbes does, in a fashion of his own, ask the question what a phenomenon is; and, at an earlier stage (as before remarked), he does not take up with magnitude and motion as the prime aspects of Body till, like Aristotle, he has expressly discussed the fundamental notions, and first of all investigated the means and method, of Scientific Knowledge. In the Logic and First Philosophy with which he begins the systematic treatise 'On Body,' and later on in the transition to Physics, as also incidentally in 'Human Nature' and 'Leviathan,' he cannot avoid probing, when he is not forward to raise, the deeper questions which the modern division of labour excludes from the special sciences to leave them to philosophy. And when it is found that his general thinking has an interest and a value that must be denied to his special inquiries so far as they bear upon the physical world, we must after all class Hobbes, in the modern period, with philosophers like Locke and Kant rather than with men of science like Galileo and Newton. His special inquiries become interesting and important only when they touch the subjects of Man and Society, which, as they have been the last to undergo (if they have yet undergone) a strictly scientific treatment, have hitherto been cared for mainly by philosophers. Or if, finally, we recur to what must be regarded as the true original meaning of Philosophy—the guidance of conduct by insight, then truly may Hobbes be described as a philosopher; for never did any one

look farther afield to bring all that he could discover about the nature of the world or man to bear upon the solution of the practical question how life may be regulated.

REASONING AND METHOD.

Under the name of Logic, Hobbes begins or prefaces his system with a doctrine of Reasoning and Method, because Philosophy, as opposed to Experience, is reasoned knowledge, and aims at giving a methodical, which is to say, a connected and orderly, account of the causes of things. Reasoning is the means, and Method the way and scheme, of science or philosophy.

While he deals with Method at any length only in the systematic treatise, his doctrine of Reasoning is to be gathered also from other works. In the logical section of the 'De Corpore,' where he follows the traditional line of treatment from Names through Proposition and Syllogism to Fallacy, his real drift is indeed somewhat obscured. Amid all the acute observations he makes on the common logical topics, he is there, as elsewhere, seriously occupied with one question only, What is Science, or *true* general knowledge? which belongs rather to the department of philosophy now distinguished as Theory of Knowledge; though there is needed for the solution, in the case of *general* knowledge, that kind of analysis of the means and processes of express thinking that makes up Logic. Hobbes answers the question only more circumstantially in the introductory section of the 'De Corpore' than in 'Human Nature' and 'Leviathan,' and most of the merely logical details may be neglected without prejudice to the heart of his doctrine.

Reasoning in itself, he always declares, is reckoning or computing. We do not reckon—that is, add and subtract—only in numbers. In geometry, law, politics, in all science whatsoever, we are putting things into or taking them out of an account as much as in arithmetic. Even in common experience we add or subtract every time we see an object approach or recede: we are gradually taking account of more and more or of less and less in it. But it is not by such a reckoning—"compounding and resolving of conceptions in silent thought"—that we arrive at science or philosophy. Particular experience of sense, or memory, which follows sense, is thrown out by the least change of circumstances; whereas the reasoned knowledge of science holds good for all minds, in all times and places. Scientific knowledge, or knowledge of causes, is, in every sense, *general* knowledge. How can natural experience be turned into general knowledge? This is the first point to be settled.

Nobody is more urgent than Hobbes in pointing the distinction between Science and Experience. "Experience," he declares, in language usually heard from thinkers with whom he is never classed, "concludeth nothing universally," while "nothing is produced by reasoning aright but general, eternal and immutable truth;" and the opposition runs through all his thought. Here it is reasoning against experience; in his psychology it is reason against sense, or wisdom against prudence; in his politics it is reason against custom; in his theology (when he diverges into theology) it is reason against faith, save at an innermost core. Everywhere the aim of Hobbes is to *rationalise*. But he is otherwise convinced (upon grounds of natural philosophy)

that all knowledge has its beginning in sense, and is but sense transformed. The means, therefore, of surmounting the limits of sense-experience must still be sensible. Such a means is Language or Speech, made up of Names.

"A name," says Hobbes, in the oft-quoted sentence, "is a word taken at pleasure to serve for a mark which may raise in our minds a thought like to some thought we had before, and which, being [disposed in speech and][1] pronounced to others, may be to them a sign of what thought the speaker had or had not before in his mind." It is a mark where mark is necessary, for a man's thoughts are inconstant and fading; it is a sign whereby one man gets the benefit of other men's thought, when without sign each man would be reduced to his own; and it is chosen at will, when another might equally have been chosen and but that it is chosen it need not be employed at all. What Hobbes fails to see is, that if names are both marks and signs—marks to the thinker himself, signs of his thought to others—they are signs before they are marks; since it is only as men have a life in common and form by intercommunication a social conception of things, that they become swift to mark what goes on within them. He errs also, as we now understand, in

[1] The words given in brackets are omitted in the English translation, here (E., i. 16) otherwise followed, of the 'De Corpore.' This translation (see p. 174, below) is not from Hobbes's own hand, though superintended by him. As it is more commonly read and quoted than the Latin original, the warning should at once be given that it is never to be trusted by itself. Though terse and vigorous in style, it often misses, and not seldom wholly inverts, the sense: see, *e.g.*, the end of § 2 and beginning of § 13 of chap 6.

not seeing that speech has in the first instance a purely natural origin among men as they are constituted, however it may later receive all manner of voluntary, and, in a sense, arbitrary developments. None the less he is the first of modern thinkers to recognise the now well-established truth, that intellectual action becomes effective according as it works itself out in a progressive system of expression.

It is, however, only as names are systematically combined into speech, in the form of Proposition, that they become, according to Hobbes, the instrument of general knowledge, going beyond mere experience; and while he divides names in various ways after the manner of the logicians, the point of real importance is to determine the character of the General Name which enters as term into proposition. A name, he says, is called common or universal when it is given to any one of many things from which we derive a like conception, or is imposed upon many several things for their similitude in some quality or accident. "Universal" is not the name of anything actually existing, as if besides all single men there existed man-in-general (which would be taking the name for the thing it signifies); nor is it the name of any idea or phantasm formed in the mind; but it is always the name only of some word (*vox*) or name. What corresponds to the general name in the world of reality is the multitude of similar individual things, of each of which it is the name. What answers to it in the mind is the image or phantasm of some one of the resembling things so designated, but it may be any one; as when a painter drawing the picture of a man in general, though he may choose what man

he pleases, must needs choose some man of those that are, have been or may be, none of whom are universal. Such is the sum of Hobbes's scattered statements on the subject of the General Name, and when they are all taken together, we may look in vain for a more circumspect deliverance through all the later upholders of Nominalism.

The form of Proposition arises from the Name, because names have this superiority over all other marks and signs of thought, whether natural or arbitrary, that they may be connected into running speech, and so be made to represent continuous mental discourse or succession of thoughts. There is already combination in such a name as "animal," which is made up of the two simple names "body" and "animated"; but the coupling that is of chief account for science or general knowledge is in the form of Proposition, with the more complex form of Syllogism. In Proposition, two names are coupled so as to signify that the speaker conceives the second to be a name of the same thing of which the first is the name. Hobbes has generally been reported as saying no more; but he is careful to add that the coupling, whether it is expressed by the verb "is" or by an inflexion of the predicate or (as in some languages) by mere juxtaposition of the names, does, in Proposition, besides raising by the two names the thought of one and the same thing, farther make us think of the reason why upon the same thing the two names were imposed. When, for example, we say "Body is movable," the mind does not simply acquiesce in the double designation, but is set upon seeking out what it is "to be a body" and what "to be movable";

or, in other words, how the thing differs from other things to be thus (and not otherwise) doubly named. It is then seen to have the names "body" and "movable,"—which are called Concrete, as names of something supposed to exist,—because of certain accidents which are powers or affections of the thing; while these, which are farther the causes of our conceiving the thing as we do, are themselves spoken of by names that are called Abstract,—a kind of names that has been grossly abused by the "metaphysical" writers," but of the greatest use in science.

The point that Hobbes seems thus anxious to make is, that without the use of names in the form of proposition there is no coming at a knowledge of "accidents" as distinguishable from things; and hence no Science, which deals with the generation of accidents. Connected speech enables us to have a general knowledge of things, because it enables us to view abstractly the attributes they have in common. At other times, he is content to suppose that, without speech, a knowledge of the properties of particular things might be obtained (as a deaf-mute might discover in a triangle before him the equality of its three angles to two right angles) but could not be fixed and generalised. On either ground, language is proved to be the indispensable instrument of scientific knowledge, which is general as well as abstract. Hobbes, only, does nothing to solve, or indeed ignores, the fundamental difficulty of explaining how the mind's frailty, in keeping hold of the succession of its natural experience, is helped by the addition or substitution of an arbitrary verbal association. Language must be conceived as having both a natural and a social origin—that

is to say, as arising naturally between man and man—before it is understood how words may become a means of effectively fixing conjunctions of thought that would otherwise be loose, and, still more, of conjoining thoughts that otherwise would not be conjoined at all.

So much, in any case, for the generality of Science. But how are the general expressions of science, then, related to the reality of things? This is the question of Truth, and we have to see how Hobbes, from his logical point of view, advances and is able to meet it.

A proposition, he declares, is true when the predicate contains the subject within it, or is the name of every thing of which the subject is the name; and there cannot be any other kind of truth than truth of proposition. We may have experience of one thing as like another, but likeness is not truth. Neither in passing from one thought or representation to another, on the ground of experience. will Hobbes allow that there can be any question of truth, though he does not refuse to say, at another time, that in such a case there may be error. Truth, while it can be said of names as coupled in proposition, can be said of nothing but names so coupled. How else, he asks, could there be such a thing as Necessary Truth? It is, for example, eternally true that "Man is an animal," though there is no necessity that either man or animal should eternally exist. Truth is, in fact, a certain fixed or consistent way of using the names imposed by ourselves or others; and as names, we saw, are arbitrarily imposed, Hobbes is forward, when he is in the vein, to draw the conclusion that truth is in all strictness the creation, and even the arbitrary creation, of speaking men. It follows that Science, which con-

sists of names, in this sense, truly joined into propositions, and of propositions, in the same sense, truly joined into syllogisms, does not, like Experience, give a knowledge of facts or reality, but only of the use of names. Elsewhere he puts it that, while Sense and Memory give a knowledge (of fact) that is absolute, Science, being knowledge of the consequence of one affirmation to another, is merely conditional. Thus, he argues, all true knowledge reposes ultimately on definitions; which themselves are certainly true, because they are mere explications of names chosen with a determinate meaning.

There is no way of overcoming the difficulty here in Hobbes's theory of general knowledge. His denunciation of the Scholastic quibbling with words, and his brilliant epigrams on the abuse of language, show him eager, with the foremost of his time, to work towards a knowledge of things; but he cannot express—what he so clearly sees—the necessity of speech for science without committing himself to positions that appear to exclude all such reference to actual experience as can give any real import to human speech and thought. Truth, with Hobbes, is so much an affair of naming, and naming is so much an arbitrary process, that science, for any reason that he gives to the contrary, becomes altogether divorced from fact. If a true proposition is made true in the act of giving names, and remains true as the same names continue to be joined together, what need that it have any objective application at all? In definitions Hobbes leaves quite aside the question how there comes to be such a determinate meaning expressed by one name that it can be explicated by the combined use of other more general names. Though there may be no

question of real truth between the subject and predicate of the propositional form in which a definition is set out, it is no matter of indifference to science whether the elements conjoined in the predicate represent some actual conjunction in experience; while of truth embodied in real or synthetic propositions, which are not definitions, Hobbes's theory takes no account at all.

Such as it is, however, the doctrine of Truth gets some farther illustration from an interesting view of Error. We may pass over what is first said on the combination of propositions in Syllogism, where Hobbes is original only in attempting to express the exact mental process between premisses and conclusion—and fails transparently. Error in the mere "form" of reasoning, he later remarks, may always be shown to arise from the presence of four terms, but the right use of syllogism comes by practice and the study of strict demonstration (as in mathematics) rather than by help of logical precepts. The error he is more anxious to signalise is in the "matter" of propositions, and should in strictness be called Falsity, to distinguish it from the "tacit error" of sense or thought that consists in a mistaking of natural signs, and arises, in animals as well as men, from the very want of reasoning with general language. As he puts it in his humorous way, the human privilege of reasoning or reckoning with general names, in all things of which there is a more or less, is "allayed by another, and that is by the privilege of absurdity to which no living creature is subject but man only; and of men those are of all most subject to it that profess philosophy." Falsity, absurdity, or senseless speech, as opposed to truth, is then the calling of anything by a

name that is not its name; or, in other words, is coupling in proposition the names of different things, whereof he makes four main kinds: (1) Bodies, (2) Accidents, (3) Phantasms, (4) Names themselves and Speeches. As many ways as there are of combining any two of these with one another, so many are the ways of incoherent speech—current, as he shows by examples, more especially in the "common philosophy," against which the doctrine is obviously pointed. Names are rightly coupled only when they may be proved (by definition) to be of one and the same kind. However, a proposition is not therefore true when the fundamental forms of falsity are thus avoided. To prove it positively true, definition must be carried much farther. Both names must be resolved, it may be over and over again, till brought to that which is most simple in the kind; and if the truth, after all, is not evident, it then becomes, says Hobbes, a question of philosophy. That is to say, it must be investigated by reasoning that starts from such primary definitions as he next proceeds, under the head of Method, to exhibit as lying at the basis of all human knowledge. In fine, he has still no account to give of proposition as conjoining in general terms the facts of actual experience, but would appear to suggest that what there is more in any truth than a fixed and recognised use of names, is to be understood only in systematic connection with certain first principles to be once for all laid down in such a way as that they may be accepted for rational.

The problem of Method, with Hobbes, involves two questions: how to use reasoning (1) for a knowledge of the causes of things generally, (2) for determining par-

ticular conjunctions of cause and effect; and the answer to the first not only provides the means of answering the other, but takes the form of a complete scheme of philosophical knowledge.

The search for causes sets out from such knowledge of things as is had by way of sense. This is a knowledge of things as they appear in fact—which is to say, in all that complex variety of sensible aspects that makes them singular. For knowledge of cause, on the other hand, the aspects or appearances of things must be taken separately rather than as they are in fact joined together. Now, though less known *to us* than the singular things of sense, universals, as the common aspects of things may be called, are (in Scholastic phrase, after Aristotle,) better known *to nature*, or in themselves. The first step, then, in the actual work of philosophy is to make an analysis of sensible objects into their "parts" as thus understood.

For the methodical conduct of such analysis Hobbes gives no directions. With what things it should begin, if with any rather than with others, and by what steps the more should be reached from the less universal till the most universal notions are clearly recognised to be such, is in no way indicated. Here, if nowhere else, some reference might be expected to Bacon's theory of Induction, had that made any impression upon Hobbes's mind; but there is not the faintest reminiscence of it. He is only sure, as it is the sensible world in which he, with his contemporaries, is interested, that it is from a consideration of the actual things of sense that any attempt at understanding must set out. The understanding itself, however, is a purely

rational determination, and proceeds in him without any of that anxious looking backwards and forwards to sense-experience which is the note of the Baconian method.

Once obtained, by whatever way of resolution, the notions, than which Hobbes can think of none more universal, are then to be put together again in order to account for the actual appearance of things; but for this they must first of all be defined. Some, the most general of all, such as Space, Body, Motion, admitting of no resolution into anything else or simpler, can but be expressed in the shortest possible speech that will seem to raise a clear and full idea of them, or, otherwise, be indicated by way of examples. Others, which have some conceivable causes into which they can be resolved, are to be defined ultimately by stating these; which can only, says Hobbes, be their generating motions, since it is plain that all have but one cause, namely, Motion (while of motion itself there can be no other cause than motion). The whole body, then, of fundamental definitions, of one class or the other, with such more immediate consequences of them as complete the rational account of the sensible world in its most general aspects, makes up what he would call FIRST PHILOSOPHY.

Hereupon begins the more special work of rational interpretation, by progressive composition of such first principles of things. Body (as we shall see) being assumed as extended in space, the first thing is to understand all the modes of extension as they are generated by motion simply; or, in other words, to trace the effects of simple motion in the aspects of body as ex-

tended: this is done in GEOMETRY. Next to be considered, under the special name of DOCTRINE OF MOTION, are all such motor effects between body and body as appear in the manifest form of drawing, thrusting, &c. In the third place, motion is to be followed out among the invisible parts of bodies; but as it then *appears* not as motion but as sensible quality (light, sound, &c.), there is required a previous consideration of the causes of Sense itself; in dependence upon which there follows whatever most likely explanation may be conjectured for the actual phenomena of the earth and heavens: the whole may be called PHYSICS. Afterwards, as specially dependent on the physical explanation of sense and imagination, comes the inquiry into the various motions of the mind, distinguished by Hobbes in this connection under the name of MORAL PHILOSOPHY. And, finally, upon this follows the doctrine of CIVIL PHILOSOPHY; yet not so exclusively as that there may not otherwise be a scientific treatment of it—upon a direct analysis of our conscious experience and consideration of such notions as "just" and "unjust."

By the side of this general scheme of philosophical knowledge, the rest of Hobbes's doctrine of Method—where he prescribes the way of solving particular questions in science and distinguishes between Discovery and Demonstration — claims no particular notice. Enough to have seen how, in his view, it is possible, from a rational determination of first principles, by orderly synthesis, to obtain an absolute science of the more general aspects of things and a satisfactory understanding of such as are more special, even to the most

complex relations between man and man. But if the first principles of such universal science are definitions, and, as Hobbes insists, only definitions, how is this to be understood in face of the declaration that definitions are nothing more than arbitrary conjunctions of names? It is another language that Hobbes now speaks. We are now told that the words explicating any name must be such as will raise an exact idea of the thing. Or, if there is still some echo of the earlier declaration in the saying that to refuse to accept a man's definition is the same as to refuse to be taught by him, it is yet added that all parts of the subject defined must be *understood* as they are resolved in the definition, before this can be accepted as a principle of science. And, even more, the requirement now expressly formulated, that the definitions of real science shall always be constructive when it is possible to assign the generation of the subject, transports Hobbes at once out of the circle of merely verbal expression within which, in his eagerness to magnify the importance of speech for thought, he had let himself be imprisoned when he was not thinking of the actual procedure of science. The distinction, indeed, which he makes among the aspects of things as dealt with by science—that some of them, and not others, admit of *a priori* construction—is neither now nor later grounded by him in such an analysis of knowledge, psychological or philosophical, as can alone justify it. Notwithstanding, we are left at the end of his introductory section with a scheme of philosophical knowledge so coherent and comprehensive, that there should be no little interest in seeing him develop and elaborate it into the fulness of a system.

FIRST PRINCIPLES.

In accordance with the scheme, Hobbes proceeds, in Part ii. of the 'De Corpore,' to lay down the First Grounds of Philosophy in a number of widest definitions and demonstrations. Five chapters—on Place and Time, Body and Accident (including the first account of Motion), Cause and Effect, Power and Act, Same and Different—bring him to Quantity, and he is then drawn into the special subject of Geometry; though he would have it that he is still occupied with First Philosophy when he develops, in two chapters more, a theory of Proportion and even seeks to determine the differences of Line, Angle and Figure. For clearness of view, it will be well at the first stage to keep more closely than he does himself to the lines of the scheme, and separate out as far as possible his more strictly philosophical principles. Though it is not altogether without reason that he takes up into what he calls his First Philosophy some part of the subordinate doctrines of Magnitude and Motion, the very fact that we must follow him later as he departs from the scheme in blending these two together (in one Part iii.) makes it the more important to adhere to it as long as we can. The first thing of all to understand is the exact position he takes up in beginning his general task of scientific construction.

Starting with a feigned annihilation of the whole world save one man, with whom remain "ideas" or "phantasms" of his former experience, Hobbes at once finds Space and Time to have a being only in the mind, yet, while purely subjective, affording all the ground

that is necessary for distinguishing such notions as Part and Whole, Division and Composition, One and Number, Continuous and Contiguous, Beginning and End, Finite and Infinite. Hence he is led to assert that Body, as it would be if created anew, or as it now in fact really is, exists with one constant attribute of Extension, mentally represented as Space, and has all its variable and varying aspects explicable in terms of Motion, mentally represented as Time. Now it might seem that, in thus beginning with a notion of Space and Time as subjective, he plants himself at the properly philosophical point of view — whence it is sought to understand being from thinking; but it is not so. He never makes any question (like Descartes) of the absolute existence of Body, or doubts with himself how it can come to be known. He assumes it as unreservedly as it is assumed in the positive sciences, where the problem is to find the simplest—which is to say, the most general—phenomenal expression for its various manifestations. It can only not be said that thinking is of as little account with him as with the common scientific inquirer, who also thinks, but does not think of the thinking, in comparing things with one another. Hobbes has been led, by his previous analysis of language as the instrument of thought, to doubt or disbelieve the full reality of a *general* knowledge of things. As he now puts it, "when we calculate the magnitude and motions of heaven or earth, we do not ascend into heaven that we may divide it into parts and measure the motions thereof; but we do it sitting still in our closets or in the dark." The fiction of a world as no longer really existent, but only thought of, seems to him a good way of showing what can be known gener-

ally—which is to say, scientifically—of the world as it really is. This is not touching the bottom of knowledge, and it is at a later stage that Hobbes has forced upon him, to the extent that he ever recognises, the proper question of philosophy; but it is science of more than usual insight.

The view he begins with of Space and Time gives at once the measure of his insight. It was no small stretch of thought to conceive of space as merely subjective, and declare that such is the very space that all men truly mean when they speak of it. There is also a hint of deeper philosophical consideration in the remark that the phantasms remaining with the survivor from the wreck of things may be viewed in either of two ways—as mental facts if the question be about the mind's powers, or as yet appearing to exist or stand outside; in other words, as having either a subjective or an objective reference. But the objective reference is what really concerns him, when he straightway defines Space as the phantasm of an existent thing simply as existent. A phantasm as it is proved to be by remaining as a fact of consciousness though the world of things were destroyed, it not only, with Hobbes, portends a reality of extended body but cannot otherwise than as an effect of extended body have its being in consciousness accounted for. Time also, as taken note of by movement of sun or clock, he regards as a phantasm produced by body in motion, or would fain call simply the idea of motion or moved body. He has to add, however, that it stands rather for the fact of succession or before-and-after in motion; which means that it is a prior fact of consciousness involved in the perception of motion, rather than in

any way explicable from motion as an objective occurrence. Altogether, he is clear only on the point that Space and Time are not other than subjective, while somehow related to a reality of body extended and moving. How related, it needs a deeper kind of philosophical inquiry to determine than any that he attempts.

Body being thus assumed—in no way accounted for—by Hobbes, what the initial fiction serves to bring out is the two main aspects, of Extension and Motion, under which body is known or can be made the subject of science. The fiction is dropped as soon as he passes on to say that, if any of the bodies that were supposed to be annihilated is now supposed to be called back again into real being, such body will subsist of itself independently of thought—will exist outside of the thinker, and yet, as it is extended, will fill or coincide with some part of (imaginary) space. How the coincidence may be understood is, again for want of deeper inquiry, left undetermined; though perhaps he has the difficulty in view when he adds that body, as it is called subject (substance), is so put away under imaginary space as to be apprehensible by reason only, not by sense. The observation is carried no farther, and he remains satisfied with any expression that, while not ignoring a relation of being to thought, will suffer him to pass as swiftly as may be to the special theory of Magnitude and Motion, in which he is more interested than in the fundamental questions of general philosophy. As he began, too, by taking space as the mental representation of body, he makes no question, when laying the foundations of his system, of there being aught but body to be mentally represented. It is elsewhere, chiefly upon occasion of his coming

across the current notions of spiritual existence in his criticism of religion, that he considers the possibility of being that is not corporeal, and scouts it: arguing that if anything really exists it is and must appear as extended; or that if anything (ghost or spirit) appears extended without being really so it is merely phantasmal, like a dream-image or reflection of an object in water, devoid of all true reality.

For the scientific theory of Body, however, to which he thus confines himself, he finds it necessary to make philosophical distinction of the notion of Accident, understanding this as widely as attribute or quality. Negatively, accident is neither body nor part of body nor in any intelligible sense (as it is said) inherent in body. Positively, it is better understood by examples than by any formal definition. If it must be put into words, Hobbes cannot otherwise express it than as our way of conceiving body or (which, he says, is the same thing) the power body has of making itself be conceived. But the true question to ask in the case of any accident is rather: How does it happen (*accidit*) that body appears thus or thus? which implies that it might appear otherwise; and this is just what can be said of all its ways of appearing save one. The extended magnitude because of which anything is called body cannot be absent unless the body ceases to be, or cannot be conceived as in any way altered while the body remains what it is; but all other accidents under which body is thought of may be generated or destroyed, and when a body itself is said to be generated or destroyed it is properly of its accidents (always excepting its extended magnitude) that this is to be understood. What has

been called Essence is, then, nothing but the accident (!) for which a thing gets its name; being otherwise called Form, when viewed as it is generated. Hobbes is willing also to adopt the traditional expression *materia prima* to mark the conception of body in general as simply extended: not that there is any such thing really existent without special form or accident, but because it is from a consideration of body as simply extended that all explanation of the particular aspects of body must set out.

Hobbes's fundamental position, then, being that, as Body by its one indefeasible attribute of Extension begets the phantasm or idea of Space, it is itself understood as this is understood,—the question for science is how, in detail, the various and varying aspects of extended body (accidents as these may properly be called) take their rise. To this his general answer is: by way of Motion. There are first the varieties of extended magnitude, more particularly of Figure, that body presents; next the changes to which figured bodies are exposed. Being merely extended in space, it is only with reference to space—in other words, as moved—that bodies can undergo change; as it is also not otherwise than by (imaginary) motion that the different dimensions of space itself, with all the varieties of figure, can be conceived as determined. As for Motion, which may be defined as "the continual relinquishing of one place and acquiring of another" in time, he has before said that it is seen at once to have no possible cause but motion again. Now it is demonstrable that motion or change of motion, in body that is extended and nothing but extended, can come to pass only from some external

body at once moved and contiguous. The relation of things to one another is thus a purely mechanical one, and it is in this physical regard and no other that the relation of Cause and Effect is next, after the distinction of Accident from Body, considered.

Though body has its being as extended, it is not as merely extended that one body becomes agent in relation to another as patient; else all agents would produce like effects in all patients. Action between bodies depends upon their special accidents. An effect wrought in any patient is the generation or destruction of some accident; and the cause of this effect is nothing less than the aggregate of all accidents, in agent and patient together, which being supposed present it cannot be understood that the effect is not at the same time produced and any of which being absent it cannot be understood that the effect is produced. Such is Cause simple and entire, inclusive of *causa sine qua non*, which may be any one of the accidents that in a particular case is wanting to the production of the effect. It may be resolved into Efficient Cause and Material Cause, as the aggregates of accidents in agent and patient respectively. Beyond these, Hobbes contends, there are no such other kinds of cause to be allowed as the "writers of metaphysics" have called Formal and Final. Formal Cause, or, as it is also called, Essence of a thing, is no cause at all, though knowledge of the essence (in the sense before defined) is indeed efficient cause of knowledge of the thing. Final Cause or End, Hobbes undertakes to show at the proper time, is also but another special case of efficient cause, manifested in those things that have sense or will. And thus interpreting all causation in the purely

phenomenal sense to which we have since become accustomed in physical science, he disposes in like manner of the cognate notion of Power, which, as he takes it, differs from Cause (efficient and material) only in having reference to an effect not yet but to be produced, and called in this relation Act. A cause, he further remarks, would not be entire if it failed to produce its effect (this being supposed possible) or to produce it at the instant of becoming entire. Every effect, past, present or future, is thus produced by a necessary cause, in the sense that as soon as the cause is entire the effect cannot be understood not to follow. Contingency said of any accident is, therefore, to be understood only in respect of such precedent accidents as it does not depend upon, not as if any accident were itself not necessarily caused. Again, an impossible act (or event) is that to the production of which there never shall be full power; a possible event is that which is not impossible, and which therefore shall at some time be produced. But whatever shall at some time become actual it is impossible to hinder. . Every possible event will thus (he concludes) be necessarily produced.

Hobbes has little more to add in the way of general philosophical doctrine before passing to the consideration of those aspects of bodies by which they are distinguished from one another. Identity and Difference are, however, to be understood in general, because it happens to all bodies alike to be somehow distinguished. Two bodies may be said to differ, when something can be said of one that cannot be said of the other at the same time; and because they must always differ at least in number, or be at once in two places, no two are the same. But bodies may, further, differ in mag-

nitude, so as to be called Unequal; or in more than magnitude, when they are Unlike,—and this either (says Hobbes) in species, if the difference falls within the same sense, or in genus, if it falls under different senses. This unlikeness or likeness, inequality or equality of bodies, is called their Relation, and the bodies themselves correlative; but the relation is no second accident in either of the correlatives, only another name for the accident in each upon which the comparison is made. "He that makes two unequal bodies, makes also their inequality; and he," Hobbes continues, with a practical object which there is no mistaking, "that makes a rule and an action, makes also, if the action be congruous to the rule, their congruity; if incongruous, their incongruity." As for the much-debated question, what makes a body to be identical with itself,—some placing the ground of identity in unity of the matter, others in unity of the form, and again others in unity of the aggregate of accidents,—here, too, as he shows at length, everything really depends on what the name of the body is given for.

Of the topics that follow—Quantity, Proportion, &c. —it may at least be said that they are not treated in a way to justify their inclusion in "First Philosophy."

MAGNITUDE AND MOTION.

After determining what pertains to Body in general, taken as simply extended, Hobbes has next, in his scheme, to account for its particular appearances, beginning with the varieties of extended magnitude itself. Until it is understood how this or that figure arises, it cannot rightly be asked how bodies, being figured,

move—as in the way of change they can but move—in relation to one another. But as the generation of any figure is also not to be conceived except as some motion, the subjects of magnitude and motion become inevitably bound up in Hobbes's exposition from the first; and they are indeed so intertwined to the last, in the one ill-ordered section of "Proportions of Motions and Magnitudes" which is all he offers in transition from "First Philosophy" to "Physics," that we shall best, in attempting to pass as swiftly as possible over this portion of his work, bring under one head all that needs, for any purpose, to be noted of his mathematical and mechanical principles.

It is certainly nothing of positive value in the way of special results that lends any interest to Hobbes's mathematical chapters in the 'De Corpore' or to the later controversial writings in which he defended and developed his notions in a very singular manner,—brimful as both are of the grossest errors and inconsistencies. The interest that, notwithstanding, may be claimed for them is of another kind. Refusing to look at any science otherwise than in its place in the general body of human knowledge, Hobbes makes some approach towards a true philosophy of Mathematics, or at least Geometry; and, while aspiring to recast the principles of the science in accordance with a philosophical idea, he had it also in view to make them more effective for the solution of questions that hitherto had baffled human powers, especially such as he conceived to be involved in the task of physical explanation which had become the work of his age.

The prominence he assigns to Geometry, as if it were

equivalent to Mathematics, follows from his original position that nothing but extended body exists as the subject of science. Arithmetic or the science of number is, in his view, so much a dependant on Geometry that he gives it no place at all in his general scheme or exposition. Elsewhere he contends that its subordination is proved by its tardy and imperfect development among the Greeks; has only scorn for the more general calculus of Algebra which his contemporaries were making so powerful; and would even (at a controversial pinch) derive the very notion of number from the breaking-up of extended magnitude into parts. By implication, however, he none the less admits the essential priority of Arithmetic. His conception of Logic, which stands before the whole system of knowledge, is of a loose kind of calculus, as its alternative name "Computation" declares. In First Philosophy he recognises that bodies are to be considered as they differ numerically before account is taken of any differences of extended magnitude. And he always puts forward, as the "marrow of Geometry," a doctrine of Proportion, which, though exhibited by way of lines, is designed to solve the general question of Mathematics—how to determine the quantity of anything by comparing it with some other quantity or quantities measured.

Now, in all such mathematical or, as he calls it, geometrical reasoning, Hobbes's idea is that the start should be made from definitions that declare the actual construction or generation of the subject. After more or less of wavering in his earlier writings, he comes finally to the opinion that Geometry is the demonstrative science it is, and type of what science at its best

can be, because we *make* the very lines, figures, &c., under investigation, and thus have complete hold of the causes whereon they depend. He is even ready to deny that there can be any geometrical truth scientifically established that is not directly deduced from constructive definition. In general, however, he is willing to accept the traditional body of conclusions established by Euclid and others from principles that are not expressly constructive, and only is concerned to revise the principles in this sense with the double object noted before —of putting the science on a sound philosophical basis, and making it practically effective for the resolution of physical questions. So far as his purpose is philosophical, his view of the demonstrative character of geometrical science—as depending on the peculiarity of its subject-matter, which admits of free construction and therefore of exact definition—must be pronounced both true and original; though he never suggests any reason why our cognition of space or extension is thus peculiar.

After first defining line, surface and solid, by motion of point, line and surface, and so determining space to have not more than three dimensions because the motion of a solid can generate nothing more than its front surface will, Hobbes seeks to apply his idea of constructive definition to the doctrine of Proportion, in order to obtain a simpler solution than Euclid's of the difficulty of incommensurables. He begins, however, with a definition not constructive, which is designed to cover equally the two varieties distinguished as arithmetical and geometrical proportion, but which only confounds the notions of ratio and proportion and leads on to an expression of true (geometrical) propor-

tion that either resolves it into so-called arithmetical or leaves it as disparate from this as in the traditional expression. To meet the difficulty of incommensurables, his proposal is that the proportions of all magnitudes should be expressed in lines supposed to be generated by uniform motion, whereupon each (he thinks) might be measured by the mere difference of the times of generation, whether the lines themselves are commensurable or not. But here, again, he either merely restates the difficulty in a less manageable form, or turns geometrical into arithmetical proportion, besides ignoring incommensurability in numbers. He makes, too, the monstrous assumption that the proportions of all magnitudes can be represented as lines, when Euclid finds it necessary to prove the possibility even for the simplest case of triangles. Had he more thoroughly grasped the true nature of the difficulty, he could not have failed to see with what art Euclid, in an expression laboured indeed but simple for the case, had managed wholly to surmount it.

In dealing next with the main differences of lines and angles, it is marvellous what perverse and inconsistent applications Hobbes makes of his sound philosophical idea. He has, for example, the notion of angle as generated by movement of one line in relation to another; but, in order to cover the case of so-called "angle of contact," formed by the tangent to a curve, concerning which there had been much dispute, he does not hesitate to imagine two straight lines as in contact throughout their length, and then to declare that the generating motion consists in pulling the lines apart except at one point,—without flexion (except at the

point) in the case of rectilineal angles, but with continual flexion in every imaginable point of one or other or both of the lines in the other case. It does not in the least trouble him that he has sacrificed the very notion of angle, so long as he can pose as the reconciler of a difference which others could not overcome. Nor does this hinder him from straightway afterwards declaring with the others that there is after all no relation of quantity between a rectilineal angle and the "angle of contact" for which he had dared so much!

A later saying, that angles vary in size with the size of their vertical points, is not less characteristic. Though at times Hobbes apprehends clearly enough that Geometry works with ideal determinations and constructions rigorously defined, and maintains that the size of points actually set down, or breadth of lines as drawn, is to be neglected either as being irrelevant or (from another point of view) as being so small, he cannot in general divest himself of the notion that an abstraction is a nonentity. Science has to give a knowledge of real things, and real things are bodies actually extended. As points and lines, to be anything at all, must have a real size and breadth, must not this also on occasion be considered? In practice, accordingly, Hobbes considers himself warranted in reckoning, or not reckoning, the different magnitudes, just as he finds convenient—with results sufficiently remarkable.

It is not till after he has given the definition of lines and angles in all their variety, and added a definition of Figure as "quantity determined by the situation or placing of all its extreme points," that Hobbes himself professes to pass (from First Philosophy) to Geometry.

Geometry has then assigned to it the task of seeking out the quantities of figures from the proportions of lines and angles. With the properties of figures, as distinct from their measure, Hobbes does not concern himself, being content, under this head, to accept the results of Euclid and other geometers. It was the question of measure, in relation to the work of physical inquiry, that was occupying the best mathematical heads of the time. From Descartes to Wallis, after Vieta in a former generation, all were struggling, by every possible device of analysis, to find the means of making quantitative determination of figures not possible before. Hobbes's own plan, in the light of his philosophical principles, was to work out the theory of Figure and the theory of Motion *pari passu*. The rational doctrine of motion, to be afterwards used in interpreting the actual processes of nature, should be evolved in the ideal generation of extended figures; while the geometrical figures necessary for demonstrating the properties of motion should themselves be quantitatively determined in the act of being generated by this or that kind of motion.

In the one view, as in the other, Hobbes starts from a conception of what he calls Endeavour, defined as motion made in less space and time than can be imagined, or made through the length of a point and in an instant of time; which is to consider motion by help of a similar analytical device as when length was considered to be developed from the motion of a point. To velocity of motion corresponds impetus of endeavour, and from this basis Hobbes works out first a geometry of motion, as uniform or accelerated, also as compounded,

and thence a general theory of figures, complete or deficient according as the generating motions are kept uniform or are continuously diminished. In this way, though by very clumsy and incoherent demonstrations, he finds, as others had found before him, a general solution of the problem of rectification of parabolic curves. Then, after a digression on angles of incidence and reflexion, his geometrical effort culminates in a series of desperate attempts to square the circle, whereby hangs a tale later on.

Though Hobbes must confess that the crowning problem is not solved in the 'De Corpore,' he has no doubt of his ability to arrive at the solution, and hence can assume that the thing is done. He turns accordingly without misgiving to the task of making now such abstract determination of Motion as has a direct bearing upon physical inquiry. With this view, a motion that he calls simple because all parts of the moved body describe equal lines, and circular because the body returns to its original position after each revolution, is studied in detail both in its geometrical and in its mechanical aspects. What kind of currents a body moved with such an eddying motion will set up in a fluid medium, and how these currents will affect bodies floating in the medium, dissipating (as he thinks) heterogeneous and aggregating homogeneous bodies, — are questions that he determines with obvious reference to the solar system as treated later on. The study of such mechanical effects of the motion takes him, at last, clearly beyond Geometry into the next division, as he had marked it out, of his general scheme of knowledge, where Motion of body in relation to other body

falls to be considered. Following, then, upon the effects of "simple circular" motion he takes the effects of "compound circular" motion or rotation upon an axis, and adds next what he has to say of other varieties of mechanical interaction before concluding his whole abstract doctrine of Magnitude and Motion with a theory of the balance and of the centre of gravity in different figures, and with a doctrine of refraction and reflexion. A few points only need here be singled out to illustrate his view of mechanical action.

That all origin or change of motion in any body is from without, and proceeds by way of mechanical impact from some other body, entered into Hobbes's first and most general conception of Motion. Where body acts on body in the way of pressure, without visible motion resulting, he interprets the action as that kind of motion through length considered as a point which he has called Endeavour. Whether it results in visible motion or not, what has to be understood universally of endeavour is that it is indestructible and propagates itself without limit of space. In empty space, a body moved with any endeavour will continue moving with uniform velocity, because there is nothing to stop it; but, also in space that is full, the endeavour being motion will move what stands before it, and this again what stands next, and so infinitely. Nor because, in a world full of body, endeavour seems to become weaker the farther it is propagated, is this really so: it is not, Hobbes is ready to declare (with the illustrative instance of a visible heap of sand made up of invisible grains), a question of sense but of reason, and the motion which has ceased to be sensible is still not the less real and

effective.[1] Endeavour must also, he thinks, upon like grounds, be held to propagate itself thus infinitely in a single instant of time; though what is then the meaning of motion as proceeding in time (or of time as the phantasm of motion) he does not say. It follows that, in a plenum (such as he afterwards conceives the actual world to be), there is no real difference between drawing and pushing: what draws propels that which is in front of it, and the pulsion by some way of circuit must, in the absence of all void, work round instantly so as to act from behind upon the body that is said to be drawn.

These are some specimens of Hobbes's more peculiar manner: he had Galileo before him to follow in other less speculative observations on the mechanical relation of bodies. Distinguishing also their "internal parts" (though without any definition of them as atoms or otherwise), and positing a mechanical interaction amongst these, he is able to give some account of the general properties of matter, as toughness, elasticity and the like, but without any order or system. A closing reference to Habit—as motion made more easy and ready by perpetual and repeated endeavours in a way different from the motion that is natural to anything originally—is of interest as having a psychological application, which is so much present to his mind that he first illustrates the fact by the case of a person learning to play a musical instrument, and only then seeks to extend it to the case of inanimate objects like a cross-

[1] L., i. 182, 278; E., i. 217, 342. On the question of cumulative agency (as of sand-grains in a heap), familiar to later speculation, compare E. v., 304, with its interesting personal reference.

bow bent till it loses its spring. The observation should, of course, have been turned the other way to have any point or relevance here; but it is useless to look for order, coherence or definite purpose throughout all this part of Hobbes's exposition. He collects himself and proceeds henceforth in less haphazard fashion when he leaves the ground of abstract principle, and confronts the world of actual fact that offers itself to physical inquiry.

NATURE.

Such as it is, Hobbes's doctrine of Magnitude and Motion, while completing the statement of abstract principles involved in the explanation of anything that he can regard as a subject of science, completes also for him all that part of the theory of Body that consists in deducing the effects of causes known. There is no rational—which is to say, constructive—demonstration possible of the actual constitution of Nature. Knowledge of physical facts cannot begin from necessary causes embodied in definitions, but only from the facts themselves as given in experience. The question now therefore, is to find not the effects of simple causes but causes of complex effects. Instead of a universal and certain demonstration, certain at least to all that accept the premisses, a possible generation of the particular facts, provided it accord with the principles of the abstract doctrine of Motion, is all that can be found or need be sought. It is all that can be found, because there is no effect in nature that its Author might not have brought to pass in more ways than one. It is all that need be sought, because it would, as well as the

very truth, enable us to produce the effect, supposing the materials and the means of bringing them together were in our hands.

The reason given by Hobbes for the merely hypothetical construction of Physics is partly the complexity of the motions that are actually found in nature, but more the fact that natural bodies appear with sensible qualities, some of which (as colour, sound, &c.) are not perceived as motions at all. The fact of natural bodies *appearing* to sense introduces, besides, a special complication. However it be with such abstract consideration of Body as has gone before, it strikes Hobbes that in Physics, at least, there is something plainly presupposed. Before the physical qualities or sensible aspects of things are understood, must not the nature or cause of Sense itself be known? As he puts it, the most remarkable of all phenomena is το φαίνεσθαι—the fact that some natural bodies (men and animals) have a phantasmal representation of things; and the first step is to understand the conditions of this. They are given by Hobbes in the form of a mechanical theory of Sense, the interest of which, introduced where it is, lies in its being a more expressly reasoned affirmation than is common with physicists of the necessity (for science) of construing the sensible qualities of bodies as modes of motion transmitted to the organism. As a physiological theory, it is, however, out of place at the threshold of physics, more especially when extended, as Hobbes does not hesitate to extend it, beyond Sense, to such other mental functions as Imagination and Will; while it is equally out of place so far as it may be intended to do duty for a general theory of phenomenal experience.

If Hobbes was to raise the question as one of philosophy, it should have been raised at the beginning of his system, and much more widely. As a question of science, its place is after physics, when the facts of life and mind come up for inquiry. The theory of Sense may then stand over as part of the scientific psychology which he seeks to work out under the next head of Man —where indeed he resumes it.

There is, besides, the more reason for passing by the excursus on Sense, because Hobbes after all proceeds, first, to ask simply what are the actual bodies or "objects" to be found in nature. Though he would connect this question with the preliminary inquiry by professing to seek for the efficient causes of Sense, he gives in reply a view "of the World and of the Stars" which is as frankly objective as the statements of positive physical science commonly are; or if it contains a subjective reference, the reference is not to Sense. Thus he begins with the remark that, while few questions can be raised concerning the world as a whole, none having reference to its magnitude and duration can be settled, because the human mind, being limited to phantasms that are only of the finite, can neither conceive the world as infinite in space and time nor prove it finite by any reasonings on the nature of infinity:[1] questions of the kind, constantly begetting others equally insoluble, lie out of the province of the "philosopher" (as man of science), and should be left to be determined by lawful authority. It is, again, upon a metaphysical ground that he ultimately rests in

[1] "All this arguing of infinites is but the ambition of schoolboys." —E., vii. 446.

deciding the one cosmical question—between Vacuum and Plenum—which he puts forward as a proper subject of scientific reasoning. Examining the arguments of Lucretius (after Epicurus) in favour of vacuum; rejecting also the modern experimental proofs urged on the same side, including Torricelli's and (at a later time) Boyle's, because in all of them the penetrative power of air through water or mercury, or by the side of the most closely fitting piston in an air-pump, is not sufficiently allowed for;—he declares himself willing, for his own part, to take his stand upon one single experiment in proof of plenum, that water will not run out by the small holes in the bottom of a gardener's pot when closed at the top. It is plain, however, that the strength of his conviction that there is no vacuum in nature comes rather from his fundamental philosophical conception of body as alone real, and of space as nothing but subjective phantasm. For all his approach to the scientific point of view in the reference of the question to experiment, he decides for plenum in as purely metaphysical a spirit (though not on the same grounds) as Descartes. He could not else so perversely, even ludicrously, misinterpret the physical experiments on which he professes to rely.

Excluding, thus, the supposition of vacuum, Hobbes otherwise premises, for the application of his abstract principles of motion to nature, that movable bodies are of three kinds *fluids*, with parts separable by the slightest effort, *solids*, that can be parted only with greater force, and bodies *mixed* of fluid and solid; it being understood that fluid is to be taken strictly, not as dust or meal may be so called, but as divisible into

parts themselves always fluid—which is true, he thinks, of water and the like. The world as a whole may then be taken as an immense space (which Hobbes now seems to have no difficulty in thinking as other than phantasm), including bodies solid and visible—earth and stars, bodies solid but invisible—smallest particles or atoms scattered about amongst the others, and, last, a most fluid ether filling up all that remains so as to leave no empty space at all. The great solid bodies (at least the sun and planets) are to be credited with a natural motion; as are also the minute particles strewn everywhere about. The parts of the pure ether, on the other hand, have no motion at all but what they receive from the solid bodies (great or small) floating in them.

To take the ether first: it is air, common air, but without the invisible solid particles commonly mixed up with air. Even as air it is invisible, nor is it apprehensible (Hobbes thinks, even as air) by any other sense: it is known to exist as body only upon the rational ground that without a bodily medium to convey motion distant objects could not act upon our senses at all. Spread everywhere round solid bodies, it is also spread through them in contact with their ultimate particles, and as it passes in or out among these causes rarefaction or condensation. Weight it has none, because it has no motion of its own at all and therefore not that particular motion (towards the earth's centre) which gravity is. But, though devoid of proper motion, it is highly mobile, and, agitated by any movement, it can set other things in motion, while it transmits the agitation outwards from the source equally

in all directions, and indeed without any loss howsoever far carried. So conceived, the air or ether is used by Hobbes in the explanation of all natural processes, whether they appear as motions, or, though really motor, appear to sense otherwise.

Among the great solid bodies in nature, the sun has the first place; next the planets in order outwards; and beyond these the fixed stars, at varying distances but all so great that the radius of the earth's orbit is but as a point in comparison. All of them may be supposed to have a proper motion of the sort which Hobbes has before called "simple circular." In the sun and earth, this (with the ether as medium) is, he thinks, sufficient to account for all the specific motions and relations assumed in the Copernican view of the world. The start must be made from a real motion in the sun. The immaterial species of the Schoolmen are no cause at all; and Kepler's magnetic virtue, of which nothing is known, must be some kind of motion, if it is anything. An axial motion of the sun is, indeed, insufficient, as propagating no outward endeavour to the earth; but motion of the "simple circular" sort contains such endeavour, and, through the medium of the ether, it not only explains the annual and diurnal motion of the earth, but at the same time, by virtue of its properties as demonstrated abstractly before, provides for that parallelism of the earth's axis, to account for which Copernicus was forced to complicate his theory with the assumption of a third motion. Such motion in the sun is not in a circle large enough to be apparent to sense, but may be supposed as swift and energetic as can be. How by throwing off the ether it causes this to fall into a circular stream, which

bears the earth round in the current; causes the earth also to rotate on its axis, which remains always parallel with itself; gives the earth such an eccentric orbit as Kepler had made evident; is involved also, with similar original motions in the earth and moon, in bringing to pass the tides of ocean,—all this, and much else, Hobbes finds no difficulty in *supposing* to his own satisfaction, making as much or as little reference to his abstract doctrine of motion as he finds convenient, or not hesitating, at a pinch, to run directly counter to this or that "demonstration." Except that he must be allowed the credit, over Descartes, of accepting without reservation the heliocentric system, and of being in his way not less concerned than Newton himself to interpret it upon plain and intelligible physical principles, no account is to be made of his astronomical doctrine. Connected with it is the explanation that he gives, at a later stage, of terrestrial gravity. A stone thrown up falls through being pressed downwards by the air, which the diurnal motion of the earth throws off higher than the stone at every part of its upward course. Because, then, this motion of the earth has less effect upon the circumambient air towards the poles, he does not hesitate to declare boldly that the force of gravitation will be *less* there than at the equator!

The little bodies assumed by Hobbes as third constituent of the universe—eluding sense like the ether, but solid like the great masses—are brought forward when he turns from the general processes of nature to explain the sensible qualities of things. He speaks of them occasionally as atoms, and it is by aggregation of such invisible elements that visible bodies must be sup-

posed compounded; but he has no theory (like the earlier Atomists) of the manner in which the composition may have taken place, being satisfied if he can think of bodies, however vaguely, as having parts that may be in motion when the bodies themselves seem at rest. Otherwise, the minute particles are to be understood as scattered everywhere through the ether in countless number, and differing among themselves in consistency, magnitude, motion and figure. They are there to be had recourse to whenever Hobbes chooses to fancy them as concerned, by motion communicated to the ether, in the production of any sensible effect. In the last resort, however, it is neither on the particular conjunction of moving corpuscles in ether, nor on the particular kind of motion in the molecular constituents of bodies, that Hobbes lays most stress in the explanation of the properly sensible aspects of body. A real motion must be supposed in bodies; but it is as this is taken up, directly or through the medium of ether, by a sense-organ and continued as a real motion within the organic frame, that light, sound or other such "phantasm" (as in subjective speech, already at this stage, he is forward to interpret the sensible quality) arises. Hence the prominence that he gives to the physiological conditions in his physical doctrine.

The details of the exposition may be lightly passed over. The source of the motion which appears as Light to the eye, is the same "simple circular" motion of the sun carried outwards by the ether which has already been used to account for the larger natural effects; the fact that it is now received by the eye making all the difference. Heat is another effect of the same

original solar motion, as this may be supposed to set up a fermentation of the particles of air; whereupon, to prevent vacuum in the air-medium, the fluids of the sentient body are called forth (in perspiration) and the solid parts swell. Cold is, with Hobbes, not simply the absence of heat but a positive quality in the opposite sense, dependent on the action of wind, the explanation of which (as of gravity) carries him back to a consideration of the greater processes of nature, viewed out of special relation to the animal organism. The formation of ice, the difference of Hard and Soft in bodies, with much else, including the causation of lightning and thunder, all fall to be treated in this connection before he returns to deal with Sound, Odour, Savour and Touch, in the organic reference. Sounds are treated, in their various modes, at some length with real intelligence; Smells and Tastes more briefly, though with the same clear apprehension that, in as far as there can be any scientific understanding of them, they must be interpreted as varied motions in the bodies called odorous and sapid, communicated to our organs of sense. A few closing words on Touch supply the proper organic reference omitted from the earlier consideration of temperature and texture of bodies as affecting the sensitive skin. Here Hobbes acutely remarks, as regards Rough and Smooth, that, like Magnitude and Figure, they are not taken note of by simple touch only, but, as he thinks, "also by memory." It is a pity that the remark is not followed out—where it should properly have been made—in the psychological section to which we may now proceed.

MAN.

If the mathematico-physical sections of Hobbes's philosophy, in spite of the true ideas that occasionally inspire them, give him no place in the history of effective science, it is otherwise with his doctrine of Man. Here, though he had more to borrow from those that went before him, he yet succeeded by definiteness of view and freshness of observation in making a real advance. The doctrine must be collected from the various expositions in which it is differently and never otherwise than partially set forth: from the 'De Homine,' which gives, if little more, at least the idea of Man as the proper pivot of the whole philosophical system; from the 'De Corpore,' where as a natural body Man already figures; but chiefly from the outlying 'Human Nature' and 'Leviathan,' which have in view the matter and maker of the body politic.

True to his general principles, Hobbes confines the inquiry to human nature as it actually appears—"the sum of man's natural faculties," bodily and mental. He has no scientific account to offer of the origin or destiny of man; nor, except in critical reference (as before mentioned), does he face the question of man's being in the ultimate metaphysical sense. Whether in man, as mental are distinguished from bodily faculties, there is a spirit as well as a body, is a point on which his statements waver. At times he is ready to speak of a distinct spirit in man, and only contends that it cannot be incorporeal —because all that really exists is extended; but more often he anticipates the later animistic view in urging that what men call spirit or ghost is mere subjective

representation or phantasm—dream-image, reflexion, shadow, or the like—mistaken for objective reality.

While it is one chief feature of Hobbes's scientific doctrine to bring man as endowed with mental qualities into relation with the physical world as mechanically interpreted, by making prominent, wherever possible, the organic conditions of mind, the "bodily powers" by themselves—distinguished as nutrition, motion and generation—do not long detain him. There is everywhere proof that he had made careful physiological studies; but, eager as he was to accept Harvey's revolutionary discovery, he advanced but a little way towards the later understanding of the nervous system that was then first rendered possible. The nerves, which he knows to be specially involved in sense, he still (with Galen) supposes to have the function of distributing "animal spirits" conveyed to the brain by arteries from the heart, where they are elaborated; and thus (with Aristotle) he retains for the heart the primacy over brain as regards the mental not less than the bodily life.

The mental powers are twofold — Cognitive and Motive. The cognitive power, also called imagination or conception, is what gives to a man that imagery or representation of external things which, once it is obtained, remains though the things themselves should be destroyed. The motive power of the mind, called animal or voluntary, in distinction from the vital motion of the bodily frame, involves and is dependent on the function of mental representation. It is the cognitive power, then, that has first to be understood in its various modes, beginning, as is natural from the scientific point of view, with Sense.

Hobbes, we saw, did not pass to consider the sensible aspect of things in Physics, without signalising the fact of Sense—or phenomenal experience—as itself a phenomenon to be accounted for in the way of science; and, though the fact of subjective representation may not thus have its philosophical import exhausted nor is well coupled with the particular facts of Physics, to recognise it as such a matter of inquiry is a very notable step. It is to proclaim that there is room and need for a science of Psychology as well as of Physics — that Mind can be investigated by the same method and under like conditions as Nature. Such a conception of psychological science has steadily made way in later times, and to Hobbes belongs the credit as early as any other, and more distinctly than any other, of having opened its path. Nor, although his other conviction of the need of organic reference is apt at times to make him lose sight of the properly psychological fact in a mere statement of physical and physiological conditions, is it other than a science of Mind towards which he works in his doctrine of Man. His mechanical principles, applied to the bodily organism, carry him but a short way after all, and for the rest he has to trust to subjective observation, which he was in the way of practising long before he began to conceive the possibility of bringing its results into relation with the phenomena of motion in nature. In seeking for the cause even of Sense, he sees the need of some other "sense" to take note of Sense by; and though he too simply declares that Memory is all that is wanted to account for such introspective consciousness, the fact is not doubtful to him that we "do take note in some way or

other of our conceptions," or, again, that what one man finds by "looking into himself" discloses also what are the thoughts and passions of all other men upon the like occasion.

Hobbes has thus—always apart from metaphysical foundation—a distinct enough conception of the peculiarity of mental phenomena that makes them, however closely related with phenomena of nature, a subject of special inquiry. Notwithstanding, at the stage of Sense, where the physical conditions can be most definitely assigned, he is but too ready to fall into thinking or speaking as if everything were done in assigning these; or, because the "phantasms" or "ideas" of sense, as they come and go, may be viewed as arising from the mechanical action of external bodies upon the reacting physical organism, would from this explain their properly psychological or subjective character. In particular, the outward reference of sensation in the act of perceiving objects, or the apparent outness of these, seems to him sufficiently accounted for by the fact that the inward motion received by way of sense-organs calls forth an outward reaction from the brain (or heart). Sense, which he defines, more carefully, as the phantasm appearing under such physical conditions, he sometimes speaks of as mere reaction in the organism, as if it had no phantasmal or subjective character at all. Physical consideration serves him better in suggesting or strengthening his conviction that light, sound and other modes of sense, as we have actual experience of them, are but phantasms or subjective states. If it took him some time before he could get rid of the popular notion of sensible qualities as in things, or of the Scholastic

hypothesis of sensible species devised to explain our natural apprehension of them, he saw in the end as clearly as Locke after him or as Descartes at the time that sense is mere seeming, on occasion of mechanical interaction between external bodies and the living organism. This was his express presupposition in Physics when giving account of the sensible qualities of bodies; and now, in dealing with Sense as a psychological fact of human nature, the demonstration is given with as much completeness as could be desired; his favourite proof being drawn from the appearance of bodies as reflected in water. He has also the deeper observation that, as it is the whole organism, not a particular organ, that is in any case the "subject" of sense, so it must be a real extended body (in relation with the organism), *e.g.*, the sun, and not any so-called sensible quality, as light, that is properly to be called the "object" of sense; but how in such object we perceive the extension, he does not at all consider, merely remarking at one place, in the traditional manner after Aristotle, that "motion, rest, magnitude, and figure are common both to the sight and touch."

Otherwise he has to note of Sense (from the subjective point of view) that it always carries some memory with it, or involves nothing less than a judgment of objects by comparing and discerning their phantasms; and this suggests to him that physically it cannot be regarded as a simple reaction in body, else all bodies must be declared sensible. There is need of organs, as such are actually found in men and animals, fitted to conserve the motion, if the phantasm as it arises is not instantly to pass. The comparison or assimilation of sense-impressions

gets little farther attention, though he notes, in one place, its ground-form—the recognition of identical experiences had at different times. As regards discrimination, he has the famous passage, ending with the epigram: "It is [almost] all one for a man to be always sensible of the same thing, and not to be sensible at all of anything."[1] But though "a perpetual variety of phantasms" is necessary for sense, a man, he goes on, cannot therefore discern many things at once. A sense-organ, and still more "those parts of every organ, that proceed from the root of the nerves to the heart," cannot be moved divers ways at the same time, so as to yield a number of distinct phantasms; or being strongly stirred in one way cannot but be less fit to take on any other impression. If we would read a printed page, the letters must be taken separately; when the whole page is looked upon at once, we read nothing. Hence he concludes—

"It is manifest that every endeavour of the organ outwards is not to be called sense, but that only which at several times is by vehemence made stronger and more predominant than the rest; which deprives us of the sense of other phantasms no otherwise than the sun deprives the rest of the stars of light, not by hindering their action, but by obscuring and hiding them by his excess of brightness."—(E., i. 396.)

The struggle among presentations (in the language of later psychology) to rise above the 'threshold of consciousness' could not be more aptly figured, but Hobbes adds nothing farther towards a theory of sense-perception. Only, some special questions of vision are intelligently treated in the optical chapters of the 'De Homine,'

[1] E., i. 394. "Almost" is an addition of the translator's; see L., i. 321. He returns to the subject in E., vii. 83.

as such questions were understood before Berkeley first gave them proper psychological form.

He passes next to Imagination or Fancy, following the general line of Aristotle's observations but seeking to give them additional precision in physiological expression. Like water troubled, he continues in his picturesque fashion, an organ of sense will remain in motion after removal of the exciting agent. In that case, the corresponding phantasm is called Imagination, as differing from sense; or Memory, if regard is had to the fact of lapse of time, which, like distance in space, is found to render the phantasms of sense both less clear as wholes and less distinct in their parts. The state is one of decaying or weakened sense; but how weakened? As mere removal of the object (or agent) does not of itself obliterate the motion caused in the organ, the weakening can only be due to the fact that the same or other connected organ has meanwhile been otherwise stirred. Thus, in Hobbes's view, the representative image is a state of sense overpowered by newer sense-experience, against which it maintains itself as well as it can. But, as the stars, obscured by the sun in day-time, shine out at night, so, in the absence of sense, images may start forth with the clearness and distinctness of Dreams. The dream-image proves, in fact, that it is not the mere absence of an exciting object that makes the waking-image faint; though, otherwise, image and dream differ, in that the brain in the one case remains in motion from an external object no longer present, while in the other it is excited from distemper of the internal parts of the organism or other motion in them, formerly, it may be, transmitted from the brain

itself. All the phenomena of dreaming, noted by Hobbes with especial interest and care, consist with this view—the want of order and coherence ("like stars between flying clouds"), composition from previous experiences, interposition (as often happens) between waking-states, absence of wonder, &c. He also remarks, under the name of Fiction, the formation of compound images like a golden mountain, explaining the conjunction of elements given separately in sense by composition of motions in the brain.

In imagination, however, there is not only the image in its various forms to be understood, but how one image succeeds another. Hobbes designates the fact of the succession by the names of Train of Imaginations, Mental Discourse, or Discursion, and declares without hesitation that "we have no transition from one imagination to another whereof we never had the like before in our senses." All fancies being motions that remain from the motions made in sense, one is revived after the other that went before it in sense, "by coherence of the matter moved, as water upon a plane table is drawn which way any one part of it is guided by the finger." When unregulated by any desire or design, the succession may appear to be as utterly casual as in dreams, but this is only because of the endless variety of sense-experience, and even "in this wild ranging of the mind a man may ofttimes perceive the way of it, and the dependence of one thought upon another." This he illustrates by the well-known example of the "Roman penny." What he does not mark, either in this case or in the case of regulated discourse (assuming the forms of Reminiscence, Expectation, Sagacity, &c.), is any

such distinction between the relations of contiguity and similarity among mental states as had been noted by Aristotle in the explanation of memory, or has been noted since by those thinkers who have sought in 'Association' the ground of all mental synthesis. Without using the word, and giving it no such width of philosophical application as the later Associationists, Hobbes allows for 'contiguity' only in the process of representation. His physiological account of the process, chiefly figurative, is vague enough, but hardly more so than that with which science has even yet to be content.

So much, then, being understood of Mental Discourse, nothing more, according to Hobbes, is required to account for all that may be summed up as Prudence in man—the quality that he shares with the brutes and has only to a greater degree, particularly in the form of anticipating his experience upon memory of what has gone before. The distinctively human faculty of Reason and Science needs other explanation. Reason is a power of conjoining things otherwise than as they occur in natural experience; science is knowledge of the true or unfailing causes of things (no mere memory of their particular antecedents), and more especially it is the orderly and organised understanding of causes in general for the furtherance of human welfare. This is attained by men only as they have the power of fixing the succession of their thoughts by the use of a system of definite marks, which, as standing equally for any one of a multitude of similar experiences, discharge the mind from the burden of representing the whole mass of its experience as actually had, and enable it to single out the permanent conjunctions obscured by variety of time

and place and circumstance. So much we have seen Hobbes urge from the first in laying the foundation of his reasoned system of knowledge; and now, again, in dealing with Speech as a fact of human nature, its necessary implication with the function of general thinking—both when thinking takes the form of true science and when it lands men in absurdity, from which the speechless brute is free — is enforced with the most telling art. But he attempts nothing more. The scientific question how speech arises, which he might have effectively grappled with from his physiological point of view, is not touched; neither does he occupy himself further with the manifold processes of thought proper to be accounted for by any satisfactory psychological theory. He turns instead to the "motive power" in man, which is to give occasion for the construction, by reason, of Body Politic over Man.

Here the reference to organic conditions, which has disappeared at the higher stages of the conceptive faculty (after imagination), becomes again for a time prominent with Hobbes. Animal or voluntary motion, which involves "conception," is not only a bodily process as far as conception is such, but is also immediately dependent on the vital motion of the body. The phantasm or conception of something external, which arises when motion is sent inwards through a sense-organ to the brain in its connection with the heart and evokes an outward reaction thence, is not the only effect of such motion. According as the vital motion of the heart itself is helped or hindered, there arises another kind of sense, namely, of Pleasure or Pain, which seems to be within the body from the motion being inwards,—

as Hobbes has no more difficulty in supposing now than when he explained the objective reference of sensation from a bodily reaction outwards. At the same time there is here, also, an outward reaction of another kind. The heart's motion, when heightened, has the effect of so directing the "spirits" along the nerves to the sense-organ affected as to sustain and augment the motion set up there; or, if it is depressed, the vitality is restored by the bending or straightening of other parts of the body. In other words, there is upon occasion of pleasure or pain an internal (physical) endeavour to or from, which, invisible as it is, may have visible result; and such endeavour is what is called Appetite or Aversion. Thus does Hobbes keep his promise that he would show "final cause," in things having sense and will, to be also but a case of "efficient cause." Pleasure and Appetite are, indeed, one and the same fact viewed in different ways: Pleasure, the "sense" or subjective phase of heightened vitality; Appetite, a natural "endeavour" not to be distinguished from the heightened vital action. It is a remarkable anticipation of later scientific theory as to the first beginnings of anything that can be called voluntary action in relation to sense.

Appetite to or aversion from, upon actual pleasure or pain of sense, is, however, but the rudimentary form of will. Beyond pleasures and pains "of sense," there are pleasures and pains "of the mind," involving imaginative expectation, which, in the form of Hope and Fear of good and evil (as the objects of desire and aversion may generally be called), count for as much more in the determination of action as imagination reaches beyond

present sense; while they are not less real "endeavours" or beginnings of motion in the animal system. Now there is for ever going forward in the mind a most varied play of such imaginations,—the man moved this way or that by anticipation of good or evil to come. So long as the alternation of appetites and aversions, hopes and fears, proceeds, the state of mind is to be called Deliberation; but let the deliberation end with the passing into act of some one inclination, and then it becomes Will. "Will is the last appetite in deliberating." Not less voluntary, however, is the simple original form of direct action upon a present pleasure, for there the one appetite is the last. And, generally speaking, there is nothing to be called Will in human nature but this fact of action upon some appetite or some representation of good and evil.

Hobbes is content with such a summary account of Will as the mental phase of a purely mechanical process, simple or complex, in the nervous system, when not, as we shall afterwards see him, drawn into controversy (with Bishop Bramhall) on the philosophical issues involved in the determination of human action. Even then, while there are few aspects of the philosophical question on which he does not at some stage pronounce, —ready as he is to follow his adversary into all its implications, as they had been drawn out by S theologians, and eager to employ his dialectical exposing the difficulties or weak places of the minist position,—it is plain that his own thoug subject has always an essentially limited ran acts as he is moved mechanically—in the firs (or last resort) from without, and is not the les

ically moved, because he has a sense of the motion, which may be psychologically considered. The psychological consideration tends to separate Hobbes from the fatalists and the theological predestinarians with whom he does not hesitate, on occasion, to speak, and gives him the first place in the modern succession of scientific determinists, by none of whom he has been surpassed in clearness of conception and statement, so far as his view extends. It, only, does not extend very far, with his psychology confined to the more superficial aspects of human nature, and never coming within sight of the notion of personality, or even of character, as involved in self-determination. The like, however, may be said of many who followed in his track; and if Jonathan Edwards (in 1754) is anxious to disown any debt to such an "ill-minded mischievous man," Priestley (in 1777) can only wonder that Hobbes should have propounded "the proper doctrine of philosophical necessity" so clearly and defended it so ably.

He expands more freely on the Passions, his special name for the *mental* pleasures and pains which "arise from the expectation that proceeds from foresight of the end or consequence of things, whether those things in the sense please or displease." They may be summed up [illegible] the two heads of Joy and Grief; and without more [illegible]ance, in 'Leviathan,' he proceeds to characterise [illegible]terms the multiplex forms of each, supplementing [illegible]s the account of human impulses to action by [illegible] on "Power" and on "Manners" as "those [illegible]of mankind that concern their living together [illegible] and unity." In 'Human Nature,' with less [illegible] of topics, the analysis had before been carried

deeper. Hobbes there brings out into full relief the element of (intellectual) representation that is in all Passion (Emotion), as distinguished from Sense-feeling. "Conception" being, he says, of past, present or future, the pleasures and pains of Sense are to be distinguished as involving no conception but of an object present to the bodily organs; or when, as sometimes in smell, and generally in hearing and sight, the sense-impression is accompanied with representation, the pleasures and pains partake rather of the character of passions. In Passion proper the conception, as expectation of good or evil, is directly of the future, but indirectly also of the past, because all anticipation reposes on previous experience; more particularly, it is a conception of power (or powerlessness) to produce something from past experience of how it has been produced. The passions, then, may be defined generally as the pleasure or displeasure that men have from opinion of their Power; power consisting of the bodily faculties and knowledge, with all that these procure, as riches, place, friendship, favour, &c.

It is from this point of view that Hobbes gives (in 'Human Nature,' c. 9) his more elaborate description of the different passions, condensing into pregnant paragraphs—like those on Pity and Laughter, which have been fought over ever since—the observations he had made on men and manners when as yet he had no thought of mechanical philosophy. Here his conception of man as moved by purely selfish impulses is most distinctly marked; and here is to be sought the true source of his theory of civil government as necessary for the preservation of men from the consequences of their anti-social

disposition. His later insight into the bodily mechanism of mental life suggests to him that the manifest differences of human wits may depend on variety in the passions as conditioned by differences of general bodily constitution; while on the contrary, with the original sense-endowment practically equal in all men, the "temper of the brain," upon which sense depends, is to be supposed equal. But he reverts (in 'Leviathan') to his position of mere human observer for his final view of men's action in relation with one another. In all men alike he recognises one overmastering purpose —"a perpetual and restless desire of power after power that ceaseth only in death." This assumes, as between man and man, a variety of forms that may best be noted at the farther stage of social life, when the question is how men's natural impulses are to be repressed under penalty of mutual destruction. It should, however, be added that Hobbes, in making his own happiness to be the one motive spring of action for each man, avoids the superficial identification of happiness with mere pleasure, by declaring that "the felicity of this life consisteth not in the repose of a mind satisfied" but rather in "a continual progress of the desire from one object to another, the attaining of the former being still but the way to the latter." And once at least he can forget egoistic feeling so far as to say that "that which gives to human actions the relish of justice is a certain nobleness or gallantness of courage, rarely found, by which a man scorns to be beholden for the contentment of his life to fraud or breach of promise."—(E., iii. 136.)

One other natural disposition is finally to be noted

in man—not the less natural because it is carried over into the social state and needs very special regulation there. Hobbes never fails to signalise in man (alone among animals) a "seed of Religion," springing from general intellectual curiosity, as well as from the power of forecasting the consequences of things as good or evil. The mere inquisitiveness by itself should suffice to lead men backward and upward along a continuous chain of effect and cause to "a first and eternal cause of all things, which men mean by the name of God;" but anxiety and fear, arising from the ignorance of true causes and thought of possible evil, have been, in fact, more potent in urging men to make gods of whatever powers or agents they could most directly fancy to account for events. The most casual antecedents, "after one or two encounters," are apt to be taken by most men for causes; or invisible agents are fancied in the form of ghosts or spirits, conceived, like the human soul, as thin aerial substances, in ignorance of the purely phantasmal character of images as they appear in waking-life or in dreams. Quite in the manner of the modern anthropologist, Hobbes catalogues, in 'Leviathan,' the manifold sorts of supernatural beings thus imagined by "the Gentiles" in wantonness of fancy or from ignorance of natural causes, the kinds of devotion lavished on them in fear, and the innumerable ways of seeking to divine their will. The religious tendency finding such vent is indestructible in human nature; and as it has been worked upon from the beginning by legislators anxious to procure authority for their civil ordinances, so to the end it remains a factor of peculiar import in the social life of men.

SOCIETY.

There can be little doubt, however Hobbes might wish by afterthought to connect his theory of Political Society with the principles of his general mechanical philosophy, that it sprang originally from a different line of consideration. Direct analysis of the notions of Justice and Law, in relation with such knowledge of human appetites and passions as any man "that will but examine his own mind" has by experience, remained for him always a sufficient basis for civil philosophy, without going deeper; and just such an analysis is plainly to be read in the statements with which all the expositions of his political theory begin.

Men, it seems clear to him, are by nature equal in powers both of body and mind. At least, no man is so strong in body as to be safe against the attack or the arts of the weakest; and as to mind, the very fact that every man thinks he excels his fellows in prudence, which is experience, proves equality, for "there is not ordinarily a greater sign of the equal distribution of anything than that every man is contented with his share." Thus practically equal in power, men are also alike in being moved by three great passions—desire of safety, desire of gain and desire of glory—all of them sources of quarrel. The desire of triumphing over others in "the combat of wits," of making a reputation at the expense of others, engenders the bitterest strife. The desire of gain, especially when the object sought is one that can be neither divided nor enjoyed in common, leads directly to the use of violence. And the mere desire of safety will drive even the most moderate of

men to take measures against his fellows, who might else at any time use their power to deprive him of goods and liberty and life. It is not that men are not sociable by nature, as taking pleasure in one another's company, or that they have no need in infancy of help from others if they are to live at all. The passions just named are, nevertheless, those of which there is clearest evidence among men in their dealings with one another; and the natural consequence is a state of mutual distrust which can only be called war. Let a man but consider what opinion, even in the social state, he has of his fellow-subjects when he rides armed; of his fellow-citizens when he locks his doors; of his children and servants when he locks his chests. There may never have been a time when, over the whole world, a state of actual warfare prevailed: but savages still live not otherwise; and when a nation, accustomed to peaceful government, plunges into civil strife, it is seen what the human lot naturally is. Nor are independent states, at any time, in other than such a state of war or condition of chronic distrust and jealousy; though, as it gives their subjects employment, the same misery does not result as with individual men. What the state of nature means for these Hobbes ends by picturing thus, in 'Leviathan':—

"In such condition there is no place for industry, because the fruit thereof is uncertain, and consequently no culture of the earth, no navigation nor use of the commodities that may be imported by sea, no commodious building, no instruments of moving and removing such things as require much force, no knowledge of the face of the earth, no account of time, no arts, no letters, no society, and,

which is worst of all, continual fear and danger of violent death, and the life of man solitary, poor, nasty, brutish, and short. . . . It is consequent also to the same conditions that there be no propriety, no dominion, no *mine* and *thine* distinct, but only that to be every man's that he can get and for so long as he can keep it."—(E., iii. 113-115.)

From this dismal state of man by nature there is, however, a way out. Men have still other passions, which make for peace instead of war—the fear of death, desire of things necessary to commodious living and the hope by industry to obtain them. Reason, says Hobbes, thereupon suggests to men convenient articles of agreement, and directs every man, for his own good, to seek after peace as far forth as there is hope to attain it. The same Reason gives a man, in the state of nature, the Right to all: for, as by a "certain impulsion of nature," like that whereby a stone moves downward, every man desires good and shuns evil and "chiefly the chiefest of natural evils, which is death," it is but reasonable that he should do his utmost in self-defence; and what is not contrary to right reason is said to be done *jure* or with right—in which right or liberty it is implied that a man is free to use whatever means he himself judges fit. But the right, being common, is vain, if it is not—as Hobbes sometimes argues—the very cause of that wretched state of universal war. What Reason then truly says is: Come out of the state of nature as quickly as possible, rather than strive to pass a precarious existence in it. Though a man *may* do anything he thinks good in the state of nature, he *ought* to seek peace. Reason thus gives a law—in an admitted, if not quite proper, sense; and because the

reasoning faculty is natural to men, this law may be called Law of Nature, more truly than what there has been a vain attempt to set up as such upon the consent of wise and learned nations or of all mankind.

"Right of nature" always reserved, the fundamental "law of nature"—or precept of reason with a view to self-preservation—then is, that every man ought to seek peace as far as there is hope of attaining it; and from this first law follow some twenty others, given with minor variations in the different works. Thus, peace is to be maintained by way of contract or mutual transferring of rights; covenants when made are to be performed —the true meaning of Justice, which apart from covenant made has no meaning; Gratitude, Sociability, Mercifulness are to be practised; Cruelty, Pride and Arrogance eschewed; Equity is to be observed in judging between man and man; and thence Hobbes is led on to particularise a number of other more special prescriptions bearing mainly on the settlement of strife by the peaceful means of arbitration. Laws of Nature in one aspect, they may equally be called the Moral Law—as the summary of good manners, habits or virtues among men, in the only pertinent sense of the words "virtue" and "good," namely, as promotive of peaceful living. And, should the deduction of them, as given at length, seem too subtle and laboured to have effect with men under violent passion or pressing personal need, they have all, adds Hobbes, been summed up in the one precept, fitted to the meanest capacity and powerful against all mental perturbations: Do not that to another which thou wouldest not have done to thyself. Only let a man place himself in the position

of others and, his passions and self-love, that weighed heavily in his own scale, now weighing no more or weighing against him, the reasonableness of every one of the laws will immediately appear. Hobbes, it will be observed, substitutes for "the golden rule" a negative expression of different import—perhaps unconsciously; and in the same spirit he next asserts that it is not required of any man that he should observe the law of nature when others do not. All that is required is a constant desire and readiness to observe it. The law, indeed, is for ever binding upon the conscience or *in foro interno*, and this so much that the very action which is done according to law may be in fact a transgression of it, if the intention was contrary. In this view, Hobbes can even declare that, however actions may or must vary according to circumstances, the laws of nature are immutable and eternal. Injustice, ingratitude, arrogance, inhumanity, and the rest, can never be made lawful in the court of conscience; for it can never be that war to which these lead can preserve life, and peace destroy it. No action that is against reason, though it were repeated never so often and acquired all the force of custom and prescription, can ever cease to be against Reason and the Law of Nature.

In all this part of Hobbes's doctrine, as we see, it is not the mechanical philosopher that speaks, nor does he take much pains to square the conception of Reason as the source of right and law with even his psychological analysis of the faculty. He is working with current notions of Scholastic origin, and is only careful to interpret them in accordance with his personal view of the motive forces of human nature. Since 1625, the

traditional conception of men's social relations had received a new and impressive rendering in the famous work of Grotius, 'De Jure Belli et Pacis'; and, without being mentioned, the Dutch publicist is plainly pointed at by Hobbes throughout as an opponent. Common to them both, however, is the modern determination to connect the inquiry into the foundation of public law with a theory of morality as grounded in the facts of human nature. Hobbes, it is important to observe, has a distinct enough notion of the province of morality, however he may be led to it only from such a supposition of human relations as is gained by feigning men free from the legal bonds of society.[1] And, though the ground of all such actions as he indifferently calls naturally or morally right is for each man mere self-preservation, he is able on this, as he thinks, to build a thoroughly rational system of human conduct which shall provide for the general welfare, while not excluding anything that the consciousness of mankind recognises as duty or virtue in the individual. Peculiar to himself is his manner of subordinating moral to positive law, when he contends, presently, that only as there is formed a settled society can the moral law be put in force, and, later on, that the law of the state, whatever form it assumes, must wholly supersede in practice any law that may be called moral; but none the less does positive law have with Hobbes a distinctly moral origin and aim. It is to establish what he regards as right, in the deepest sense, among men, that Civil Society or Commonwealth is called into being.

[1] Compare with his fiction here the initial fiction of his whole synthetic scheme of philosophy.

The laws of nature are the way to peace, but to understand them as such is not to practise them. The generality of men will not practise them when greater present gain seems to result from their non-observance; and even those who desire to observe them, which is all that can be required of men, cannot by reason of the lawless action of others do so, and thus are obliged to fall back upon the original right of nature which leads to war. Men are, in fact, in this difficulty. Peace can come only from observing the law of nature, but to observe the law of nature some security is already necessary. A man can have this only as he is aided by others, and the mutual consent of two or three is not sufficient. The number of those who agree to aid each other must be so great in comparison with the number of those they fear, that a slight accession of strength to the other side will not destroy the superiority, which is to say, the security. Is the security even then certain? Far from it. What is to keep the multitude itself together? Differences of opinion, mutual jealousies, private interests, will break it up as soon as the common danger that united it has passed: otherwise we might suppose, what is certainly not the case, that all men would unite as this multitude has done, and so the law of nature would come to be observed without particular expedients at all.

There is, in fact, but one way for men to secure the advantages of agreement, namely, by having a common power set up in their midst, that shall wield the strength of all to keep peace within and repel foes without. Upon one man or one assembly of men (in which plurality of voices shall produce singleness of will), the power and

strength of all must be conferred; and when this one man or assembly shall so personate every one of the multitude as to be authorised to act in all things touching the common peace and safety, there is something more than concord or consent—there is real civil union. The multitude so united has become a Body Politic, or Commonwealth, or State: there is generated "that great Leviathan—or rather, to speak more reverently, that mortal god—to which we owe, under the immortal God, our peace and defence." The transference of power consists, as it only can consist, in parting with the natural right of self-defence belonging to each individual; whereupon all becomes *subject* to the sovereign or supreme power thus constituted. It may take place in two ways—by Institution and by Acquisition, *i.e.*, according as men have themselves come together and chosen to become subjects, or as they have been made such by yielding to superior power imposed on them by a master or father. The study of this difference, which Hobbes always accentuates, will light up much in his whole conception of the social relation.

The society that is formed by institution, and may be called *political*, is always considered first by Hobbes, and gives him the ground he wants for determining the rights of the sovereign power, which is his chief practical object, as well as the possible forms—monarchy, aristocracy and democracy—that government may assume. But in calling *natural* the other kind of society that is formed by acquisition, he not obscurely suggests that the institutive is first only in the logical, not the historical, order. The state of nature, if it ever actually existed, must have been put an end to by the superior

might of some men rather than by the deliberate consent of all; but how could it ever have existed in fact, when there never was a time that there were no masters, or at least fathers? That states had their natural beginning in families when not in conquest, or rather in families gradually aggrandised by acquisition of servants, is evidently the real opinion of Hobbes; though, concerned as he is with rational explanation, he not only puts first his supposition of the state formed by voluntary contract, but cannot understand the other except as it also can be shown to involve some form of covenant.

Present in some shape from the first, it is only in 'Leviathan' that the notion of a Social Contract receives from Hobbes the full development that is peculiar to him. Men agree to create a single authority in their midst by transference of all their barren rights of individual self-protection; and the rights of the sovereign authority so constituted, be it man or assembly, are wielded henceforth with the most absolute irresponsibility, so far as they are concerned who have once and for all formally denuded themselves of particular rights in hope of common protection. This is always Hobbes's position; but he gives it at last this more decided expression, that the contract is in no sense between the sovereign who takes up the rights and each or all of the individual men who resign them, but between man and man of these only. It is thus that the sovereign is properly understood to be in no way bound to those who seek protection from him. Only they are for ever bound to one another to allow whatever the sovereign does or devises for their protection, which they could

not assure directly of themselves. If, indeed, the sovereign fails to give the protection for which the sacrifice between man and man was made, the individuals may think of resuming their natural rights; but they have no remedy in any case as against the sovereign that never contracted with them.

Hobbes's notion of the State as based upon voluntary covenant is thus materially different from that doctrine of Social Contract which, already enunciated by Hooker, was afterwards definitely formulated by Locke and played so great a part in the political thought and action of the eighteenth century. Aiming more distinctly at rational interpretation, Hobbes shows less tendency than Locke to view the contract as actual historical fact; and, seeking a basis not for popular but for sovereign rights, he understands the covenant as having force only between subject and subject, not between subject and ruler. The more interesting is it, then, to observe how, when he passes to supplement his general theory by reference to that *natural* government—paternal or despotic—which obviously represents for him the historical origin of civil order, he slips unawares from his own into the other conception of contract. The conqueror, it is urged, who procures himself subjects by force, has their obedience not otherwise than by contract, tacit or express, when he spares their lives and allows them liberty of body, instead of keeping them as slaves in durance. Also, when the family expands into a civil society, it is because children have been preserved by their father, when they might have been destroyed, that he has a claim, as by agreement, to their obedience. So serious is Hobbes with his thought of rationalising all

that he finds! But here, at least, the supposed surrender of natural right is made directly to the protecting power.

Though it is curious that Hobbes does not remark this change in his notion of contract, it can make no difference in the patriarchal or the despotic state to the rights of the sovereign. Reverting, then, to the conditions imagined for the state founded by voluntary institution—that every man agrees with every other man to submit to a common authority wielding the powers of all for the protection of all, we may understand the sweeping draft which Hobbes at once makes in the sovereign's favour. Power of coercion, or the sword of justice; the sword of war, with absolute command of military force; the power of judicature; the legislative power; the appointing of magistrates and officers, judicial or executive; the determining all conditions of honour and order; lastly, the judging of all doctrines that may be publicly taught,—these are the more evident rights without which it seems to Hobbes impossible for the supreme authority to fulfil the purpose of its coming into being. And with the explication of these he joins always the emphatic declaration that, the sovereignty once founded in any form that seemed good to the contracting parties, there is no means or possibility left to the subjects of contesting or controlling the exercise of the sovereign power, much less of reclaiming or reconstituting the power itself. In the form in which it was fixed, and with the indefeasible rights common to every form alike, so it must ever remain, for any right the subjects have to change it—unless, indeed, they will front the abyss of anarchy from which it so hardly delivered them.

Hobbes is not however precluded, by his view of the

inviolability of the sovereign power in whatever form constituted, from considering both what variety of forms there are and how they tend to pass one into the others. The transition from democracy into aristocracy on the one hand, or into monarchy on the other, is expressly traced at least in the earlier works; in 'Leviathan' he is anxious rather to confine himself to showing that while democracy and aristocracy are, equally with monarchy, to be recognised as forms of absolute sovereign power, they fall below monarchy in effectiveness for the ends of government. From his rational point of view, he cannot but regard democracy as the form prior to the others. The very coming together of men from the state of nature, in order to constitute by majority of voices a civil government, is a kind of democratic act; and to constitute a democracy in the full sense, as a form of polity with unlimited sovereign powers, needs but a fixed prescription as to time and place of stated assembling, though for efficient action there may be advantage in also constituting some council or man to wield supreme power in the intervals. From such democracy, then, aristocracy and monarchy arise, when from one cause or another the people choose to give up their habit of assembling, and hand over to a limited section of their number or to one man the uncontrolled exercise henceforth of all sovereign rights; or, of course, such constitution of the civil power may be resolved on by the multitude in the first instance out of the state of nature. If, in one place, he declares that "other governments were compacted by the artifice of men out of the ashes of monarchy after it had been ruined by seditions," this is said in the mere ardour of

pleading his favourite cause, or may be understood as a momentary lapse to the historical point of view.

The case that he makes for monarchy in principle includes the following as its main points, all of them urged with characteristic vehemence. The public and private interest of the ruler are identical. There is free scope for deliberation, since a monarch can take counsel of whom, when and where he pleases—can get the best counsel and get it secretly, as no assembly with its studied speeches can. The resolutions of a monarch are not liable to more inconstancy than belongs to human nature, while an assembly is inconstant by its very numbers. Faction is not possible. The "inevitable inconvenience" that the sovereign will commit outrages on the people to enrich favourites and flatterers is less than in government by assembly, where all will play this game on the principle of *hodie mihi, cras tibi*. Finally, the inconvenience there may be in monarchy from the succession of an infant, with the temporary expedients it involves, is at worst no greater than regularly attends the rule of an assembly.

Hobbes makes short work of other forms of government thought to be distinct from the traditional three, such as elective kingdoms, mixed or limited monarchies, &c. The supreme power must always, in any case, be fixed ultimately somewhere; and where this is—in the people generally, in some particular class, or in one man—determines the true nature of the government, whatever superficial guise it may assume. But what he always overlooks, in the eagerness of his desire to prove to the revolutionaries that the essence of sovereign power must under whatever form be the same,

is that something may be gained for the general well-being by having the form masked and the centre of power not too apparently determined.

Two chief points remain of his general political theory —the Liberty of the Subject and the Duty of the Sovereign. The Liberty of the Subject is most expressly treated in 'Leviathan.' Starting from his abstract philosophical position that freedom is properly said only of a body as its motion is not hindered, and of man as he is not hindered externally when he has the will to move or act in any way, Hobbes seeks to define what liberty is left under the artificial chains of the civil law by which men have bound themselves. In one sense, the subject is free even under a law that binds, in that it is always open to him to omit to do that to which he is bound by nothing else than the fear of punishment. But in a truer sense he is free in all respects wherein the sovereign has provided no laws for the regulation of his conduct, when they might have been provided. In another and still deeper sense the subject has liberty, however the sovereign may command, namely, as there are certain indefeasible rights of the individual which it is against reason to think of as passed away upon the institution of sovereignty. A man cannot in any way be bound to kill, wound or maim himself, or bear against himself witness; or, again, to slaughter others, or perform any dangerous or dishonourable office, in a case where refusal does not frustrate the end for which sovereignty is ordained. Civil obedience may imply, "Kill me or my fellow, if you please;" but not, "I will kill myself or my fellow." The subject, also, is set free from his obedience whenever the sovereign becomes in any way

unable to render that protection for the sake of which alone men can be thought to resign their natural right.

Has the sovereign, then, an express Duty? Not towards the subject, if, as we have seen, it is not with the sovereign but with his fellow-subject that the subject contracts. It is probably, therefore, not without design that in 'Leviathan' Hobbes speaks of the "office" rather than the "duty" of the sovereign. Still he cannot deny that there is, in one sense, a "law" over sovereigns, and in the 'De Cive' he did not hesitate to speak simply of the "duties of those who bear rule." The law is that which, in different respects, is called natural or moral or divine, and as divine has for its sanction eternal death. Under such penalty the duty of sovereigns—but also, as Hobbes makes haste to add, their profit—lies in fulfilling the end for which they were intrusted with supreme authority, namely, the safety and good government of the people. By safety is to be understood not merely bare preservation, but also all other contentments of life; by people, not the city or state itself that governs, but the multitude of the subjects governed, though not each man in particular otherwise than as each can be reached by a general providence, taking the form of instruction or laws. And as the public safety includes external defence and internal peace, it is the business of the sovereign to provide fully for both. Hobbes can conceive of no external policy among nations but one of mutual distrust, with the modern standing army ever ready for action. "The law of nations and the law of nature is the same thing;" and the law of nature, in the absence of any constrain-

ing power over nations to keep them to the equal observance of it, resolves itself into right of nature in each to assert itself as it can. Internally, the sovereign, besides ruling equally between man and man and providing as far as may be for the welfare of all, has mainly to consider by what means the being of the commonwealth shall be preserved. For dissolution is the fate that Hobbes sees ever impending over the body politic; and when he advances in 'Leviathan' to the definite conception of the state as a huge organism, it becomes natural for him with his ready fancy to figure the sources of civil trouble as so many specific diseases, ending in decay and death unless the sovereign with clear insight stand forward to stay and save.

The evils to be warded off are, first, all such erroneous conceptions of the origin and nature of civil government, springing from ignorance or fostered by the malevolent purpose of designing men, as are at variance with the plain rational theory now first propounded by Hobbes himself. To meet them, there is but one effectual resource. As the sovereign power should begin by learning its own true nature and rights from the chart now at last provided for it, so it should organise and maintain a system of public instruction in the civil duties of subjects. Let the people be assembled at stated times (like the Jews every seventh day), "and, after prayers and praises given to God, the Sovereign of sovereigns, hear those their duties told them, and the positive laws, such as generally concern them all, read and expounded, and be put in mind of the authority that maketh them laws." The teachers are themselves to be first taught the like in the universities, instead of continuing to be

indoctrinated there in the literatures of Greece and Rome, rich only in lessons of civil disobedience.

But is the whole function of the sovereign discharged when subjects have their civil duty thus set plainly before them? Far from it. Man, with a natural seed of religion in him, acts not only under fear of earthly sanctions; and how is the sovereign power to get its laws obeyed if other power is there dividing the subjects' allegiance? The sovereign power, if it will maintain itself at all and be able to provide for the safety and wellbeing of its subjects, cannot choose but take in hand the regulation of their whole life, religious as well as secular. If it neglects to do so, another power, like the Papacy in Christendom, will rise up, and, by the greater might of its sanctions, make an end of civil obedience. The State must be at the same time Church if it is to remain State: the king will give ground to the priest, unless he is himself priest as well as king. But when the question is of regulating the whole of human life, distinction must be made between a man's acts and his opinions. It is impossible that the state by any machinery of instruction or of penalties should control the thoughts and feelings of the subject. On the subject's side, with freedom of thought left ever untouched, the claim of anything that can be called conscience to override the sovereign's commands must be at once rejected. This is plain so far as temporal affairs are concerned; for the laws of nature enjoin civil obedience as the elementary condition of human welfare. In case of religion, if natural religion is meant, it is not otherwise, because the law of nature is but another name for the law of God; if revealed religion, everything depends upon

a true understanding of its import. Now what, according to Scripture, is really necessary for salvation? Only the confession that Jesus is the Christ, with whatever is involved therein, but excluding all the vain dogmas invented by church-doctors under the influence of pagan philosophy. The sovereign power which utters any command trenching on the religious sphere is either Christian or it is not. If Christian, it will not go against the fundamental tenet. Whatever it enjoins is, therefore, either indifferent, or is likely to have as much Scriptural warrant as can be adduced for the opinions of private men or for the injunctions of any pretended universal church; not to say that *some* determination of controversial points in religion is necessary. In either case, the subject may safely follow its command, more especially as no mental assent—only outward conformity—is extorted; and would do wrong not to follow it, because otherwise civil anarchy must result. If, on the other hand, the sovereign power is not professedly Christian, the subject cannot indeed be expected, in a case where something is required involving damnation, to obey man rather than God. Let him then be ready, if need be, to lay down his life, expecting the reward in heaven of his martyrdom; but in any case let him not resist a power which, whether Christian or not, is divinely appointed, since it has its origin in reason uttering the law of nature, which is law of God.

Such is Hobbes's general answer to the great practical question of his age and country, philosophically grounded upon the facts of human nature as he conceived them, but urged, more especially in 'Leviathan,' with the

fervour of a political reformer. By what audacious criticism of Biblical texts and ecclesiastical dogmas he sought to support his secularist conception of life, and to insinuate, at a time of social disorganisation, his free thought in the matter of religion, lies too far apart from the exposition of his philosophy to be told at any length commensurate with the space he himself devotes to religious topics, especially in his great popular work. He had found, as he thought, the clearest reasons in the nature of men and things for regarding any form of settled polity as too great an achievement of human art, and too priceless a heritage from generation to generation, to be cast away for any consideration whatever, terrestrial or other. Living in an age when Scriptural warrant was demanded for every conclusion of the natural reason that in any way touched the fabric of religious doctrine, he had, then, to reckon with those texts that seemed at variance—as he could find others that fell in readily enough — with his scheme of human and social life. How far the Biblical argument is to be taken always quite seriously, remains as doubtful in his case as in that of other forward thinkers in the seventeenth century; but the fact that his exegesis is specially heterodox does not of itself prove that he aimed at weakening the force of the Scriptural sanction, and was not sincere in seeking such support for his reasoned opinions as his hardy interpretation still left him.

These, in briefest summary, are his more characteristic positions, as at last fully defined in 'Leviathan.' He contends for the freest rational criticism of Scripture, but subject always to permission from the civil power—a reservation which he could the more readily make as

in the circumstances of the time it did not in the least hamper himself. The cause of reason is specially to be upheld against pretensions to revelation (by way of vision or the like) on the part of the individual, "who, being a man, may err, and, which is more, may lie;" nor can the private fanatic get help from Scripture, which requires in a prophet, besides the power of working miracles, the preaching only of such doctrines as are conformable to law. Yet, while reason is to be followed in all things that can be brought within its scope, Hobbes also sounds the note, so distinctive of English thought before and after him (from William of Ockham, through Bacon, to Locke), that there is a core of mystery in religion which faith only, and not reason, can touch; venturing even to declare that it is "with the mysteries of religion as with wholesome pills, which swallowed whole have the virtue to cure, but chewed are for the most part cast up again without effect." Applied to the question of the canon of Scripture, reasoned inquiry leads to much modification of current opinion as to the date and authorship of the several books; but it seems evident that the ecclesiastics who, after some centuries, fixed the canon, did not falsify the tradition of Christian doctrine; for, "if they had had an intention so to do, they would surely have made [the Scriptures] more favourable to their power over Christian princes and civil sovereignty than they are." A large number of particular topics—Spirit, Angel, Inspiration, Kingdom of God, Holy, Sacred, Sacrament, Word of God, Prophets, Miracles, Eternal Life, Hell, Salvation, World to Come, Redemption, Mediation of Christ—are then criticism, with th

that, when their Scriptural sense is fairly interpreted, no footing is given for a priestly order independent of—not to say superior to—the civil authority. There is, in fact, no such elaborate system of dogma to be found in Scripture as ecclesiastics, Papal and other, pretend: that Jesus is the Christ is the one fundamental article of revealed faith. Neither is there any warrant for that extravagant scheme of supernatural sanctions upon the strength of which an ambitious priesthood would seek to overrule the allegiance of subjects to their secular sovereign. A reign of Christ upon earth from the day of judgment over the just restored to life by Omnipotence (not through any natural immortality), while the wicked are raised again to be consumed "in second death" by fire, which, though itself everlasting, cannot but make an end of those who may be cast into it successively as long as the world endures,—this is the plain sense of the Scriptural texts bearing upon the after-life. With such a simplified creed and narrowed view of human destiny, what need, then, for a spiritual order distinct from the naturally formed, and therefore divinely appointed, organisation of national life? The true Kingdom of God, once identifiable with the Jewish polity, has, in fact, under the new dispensation passed into the variety of independent Christian commonwealths.

It is nothing less, Hobbes finally contends, than a Kingdom of Darkness that has been set up against the Kingdom of God on earth by the cunning arts of ecclesiastical ambition; founding (as he shows by piquant [illegible] on misinterpretation of Scripture [illegible] relics of Gentile religion, philosophy, metaphysical,

physical and moral. But these arts being now, once for all, laid bare, and a true philosophical doctrine being at last demonstrated from irrefragable principles, which shows man's true place in nature and by what political constitution he can alone be rescued from brutishness and misery, it is impossible, or at least inexcusable, that nations should any longer be led astray, by priestly or other wiles, to their undoing.

Though 'Leviathan' stands apart from the formal exposition of the philosophical system, it has perforce been mainly drawn upon here for the account of Man and Society, and with the epilogue of all—written as it was in 1651—we may now pass to what remains to be told of the story of Hobbes's life:—

"Thus I have brought to an end my Discourse of Civil and Ecclesiastical Government, occasioned by the disorders of the present time, without partiality, without application, and without other design than to set before men's eyes the mutual relation between protection and obedience; of which the condition of human nature and the laws divine, both natural and positive, require an inviolable observation. And though in the revolution of states there can be no very good constellation for truths of this nature to be born under (as having an angry aspect from the dissolvers of an old government, and seeing but the backs of them that erect a new), yet I cannot think it will be condemned at this time either by the public judge of doctrine or by any that desires the continuance of public peace. And in this hope I return to my interrupted speculation of bodies natural, wherein, if God give me health to finish it, I hope the novelty will as much please as in the doctrine of this artificial body it useth to offend. For such truth as opposeth no man's profit or pleasure is to all men welcome."

CHAPTER VII.

CONFLICT (1651-78).

WITH twenty-eight years of vigorous old age still before him when he came back to England at the end of 1651, Hobbes had time and strength and inclination for much other work than merely putting into literary form the philosophical notions which he had been slowly elaborating for the best part of twenty years before, and with which he had been able to connect more or less closely the earlier opinions he had formed of the nature and manners of men. Apart from the trouble he had with some mathematical chapters of the 'De Corpore,' we have seen him proceed easily enough to the completion (or, what he was fain to regard as the completion) of his long-projected system. Now we have to turn back again to the time of his home-coming, and see how he fared after making bold as he had done to preach, in 'Leviathan,' his audacious eirenikon to a distracted country. A tangle of intermittent conflicts, growing out of occasions that were never their causes, is spread over most of his remaining years. Under whatever guise of philosophy, mathematics or physics, it was always the author of 'Leviathan' that was so vehemently

attacked; and none other than the author of 'Leviathan' could assume such a tone of haughty defence or venture on such reckless counter-sallies.

The great book made its mark from the first. Appearing at a time of social confusion and political uncertainty, it won, by its sharp and decisive utterances, many who had grown weary of the endless strife and longed above all things for repose. A doctrine that removed every ground, political or religious, upon which the Civil War had been waged, could not fail to strike minds fresh from the experience of its horrors. A doctrine that did not condemn the Revolution in its origin without supplying a rational ground for accepting the Revolution in its results, could not fail to win its way with sincere royalists who had no call to linger on in hopeless exile for a lost cause. Nor—though something more than loose surmises or the calumnies of a later time is needed to prove either that Hobbes, writing in the years before 1650, had in view the elevation of the parliamentary general, or that the puritan Protector in 1653 broke through his deepest convictions to gain the services of the worldly-minded reasoner—could the plea of 'Leviathan' for the vigorous rule of one fail to receive a signal confirmation from Cromwell's advent to power.[1]

[1] Clarendon's insinuations, set down some fifteen or twenty years afterwards, have already been mentioned (pp. 68, 71, above). The express charge that Hobbes was offered a secretaryship by Oliver is made as late as 1683, four years after his death—and even then not unequivocally—by the Rev. John Dowel in the feeblest of controversial pieces, 'The Leviathan Heretical, &c.' (p. 137). On the other hand, Hobbes is not unwilling, in his controversial ardour of 1656 (E., vii. 336), to claim that 'Leviathan' had "framed the minds of a thousand gentlemen to a conscientious obedience to present government, which otherwise would have wavered in that point."

More marked, however, than any support or justification the book received, was the opposition it aroused—an opposition that came from many sides, with Hobbes standing where he was in the middle. Neither simple royalist nor friend of the revolutionary government; neither Puritan, with his aims so intensely secular, nor Anglican, with his deep distrust of episcopal pretensions,—he stood a mark for the shafts of all. It was not the day of the Anglican clergy, before the Restoration, but "dirt and slander" were "cast upon him in sermons and private meetings" by the ministers that held the public ear;[1] and as early as 1652 literary hostilities began. The opening was mild enough: Sir Robert Filmer, constrained to attack him, in the company of Milton and Grotius, for the heresy of placing the origin of sovereign rights in the rational choice of the governed, being rejoiced to be at one with him on the question of their extent; and Alexander Ross, the learned Aberdonian, being content with picking a number of holes in his erudition or reasoning. But, in 1654, the true war-note was sounded in the 'Vindiciæ Academiarum' of Seth Ward, Savilian professor of astronomy in Oxford—the prologue, as it may be called, to the first act of the extraordinary conflict in which Hobbes became engaged with Ward's better known colleague, John Wallis, from the year 1655, and which, waged irregularly over more than twenty years, drained away his best energies for the rest of his life. As it happened, however, that in the same year he was drawn into another conflict, carried on with his left hand for a little at the begin-

[1] E., iv. 237.

ning of the greater one, we may best dispose of the smaller first.

With Bramhall.

In 1654 a small treatise, 'Of Liberty and Necessity,' issued from the press, addressed to the Marquis of Newcastle, from Rouen, in 1652, in reply to a discourse on the same subject by Bishop Bramhall of Londonderry, and subscribed with Hobbes's name.[1] It took up and answered the bishop's arguments one by one, and ended with a statement, sharp and clear, of Hobbes's own "opinion about Liberty and Necessity," given already more shortly in 'Human Nature' and 'Leviathan.' In a prefatory epistle "to the sober and discreet reader," an anonymous writer inveighed, in a strain neither discreet nor sober, against priests and ministers of every class, and declared that here another great question, over which they had been vainly or mischievously wrangling, was solved by the author of 'Leviathan.'

The piece was what it professed to be, except in the matter of date, which should have been 1646; and the history of it came out in the sequel. Bramhall, an active royalist, was one of those who fled with Newcastle after Marston Moor, and in course of time reached Paris. There, apparently in the year 1645, he and Hobbes, in presence of the marquis, had a discussion on the old question of Free-will. Raised anew at the beginning of the century by Arminius in Holland, the question had soon passed beyond the circle of speculative theologians, engendering bitter political strife in more countries than one, and notably in England, where Arminianism had

[1] E., iv. 229-278.

been hotly embraced by the royalist High-Church party, in opposition to the Calvinism rooted from the first among the Puritans. A sufferer by the war in which the sectaries had just triumphed, besides being the very type of a Laudian bishop, Bramhall was a most passionate supporter of the Arminian (as it was also, in opposition at this very moment to Jansenius, the orthodox Catholic) view. As for Hobbes, although on the royalist side, he had long held, with a strong philosophical conviction, a view more nearly allied to the tenet of the Puritan sects, and only was incensed against these, nor less strongly against Laud and the leaders of his own party, for making a political dispute out of such a merely speculative question. The discussion between the two, carried on temperately before Newcastle, having led to no change of opinion on either side, Bramhall wrote down his views and sent them to the marquis to be answered in this form by Hobbes. At Newcastle's particular request, Hobbes accordingly did furnish, early in 1646, a reply, desiring, however, that it should be kept private, because the discussion could serve no good practical purpose. Unpublished it therefore remained, as also a rejoinder made soon after by the bishop, with which, no farther notice being taken by Hobbes, the controversy had then closed. It happened, however, that, in the interval between writing his own reply and receiving the bishop's rejoinder, Hobbes allowed a Frenchman of his acquaintance, interested in the subject, to have a private translation of the reply made by a young Englishman who secretly took also a copy for himself. And now it was this unnamed purloiner who, in 1654, Hobbes having meanwhile become famous and feared,

gave it[1] of his own motion to the public and set the graceless epistle in front.

The furtive publication came upon Hobbes as a surprise, but, with the old party ties broken and himself already compromised as far as it was possible for man to be, he does not seem to have borne hard on the offender who straightway asked his pardon. Bramhall, on the other hand, was moved to the highest pitch of indignation, when he saw the treatise published, as he supposed by or with the consent of Hobbes, without his own original discourse that had called it forth or the least intimation that, years ago, it had been immediately met by a rejoinder and demolished. He proceeded, therefore, to print in 1655 everything that had passed between them, under the title of 'A Defence of the True Liberty of Human Actions from Antecedent or Extrinsic Necessity;' dedicating the whole in not very temperate language to Newcastle, and apprising the reader of his grievance against Hobbes, his contempt for the nameless writer of the wicked preface, and (by the way) his abhorrence of the deadly principles of 'Leviathan,' which, in default of others, he himself would make shift to expose. The rejoinder to which the earlier pieces led up, when it now appeared, was seen to be long drawn out, and was a performance often clever and always very erudite. It is worthy of being studied, not only as an effective statement of the view it advocates, but as a good specimen of Scholastic fence. Bramhall was a rather brilliant Schoolman.

[1] With the omission of a few lines of very characteristic "Postscript," afterwards supplied in Bramhall's 'Defence,' and to be found in Hobbes's own 'Questions, &c.'—E., v. 435.

It was now Hobbes's turn. In 1656, sore pressed as he was on another side, he published his 'Questions concerning Liberty, Necessity and Chance,' [1] beginning with a review of the occasion and points of the controversy, clearing himself from the personal charges, and then, as he reprinted the whole of Bramhall's book (first statement, his own reply and the rejoinder), animadverting in language sharp as a razor upon every separate paragraph. His enemies having by this time begun to fall upon him, he seemed, as being never more sure of himself than upon the question of the Will, to write with all the vigour he could command, in order to warn off assailants. "I have been publicly injured," he exclaims as a last word, "by many of whom I took no notice, supposing that that humour would spend itself; but, seeing it last and grow higher in this writing I now answer, I thought it necessary at last to make of some of them, and first of this bishop, an example."

The rest, though it is somewhat to anticipate, may here be told. Bramhall, in 1658, not only returned to the charge with very long-winded 'Castigations of Hobbes's Animadversions,' but made good his threat against the *monstrum horrendum* in a bulky Appendix, entitled 'The Catching of Leviathan the Great Whale.' To the 'Castigations' Hobbes never paid any attention. The charges of atheism, blasphemy and impiety filling the non-political part of the Appendix, which he declares he never heard of till ten years later, he did then rebut in his most cutting style, though his answers, like other of his writings at that period, did not see the light till after

[1] E., v.

his death.[1] Bramhall, made Archbishop of Armagh on returning from exile at the Restoration, had meanwhile died in 1663.

In the greater strife from 1654, which only death, after a quarter of a century, could compose, the action may be resolved into three parts, of which the first extends to 1657.

I.—With Ward and Wallis.

Upon no point had greater stress been laid in 'Leviatian' than upon the need of a radical reform in the Universities. It was a fixed idea with Hobbes, traceable perhaps, as we have seen, to his own experience in youth, that universities were originally founded to bring Scholastic ingenuity to the support of Papal domination over the civil power; wherefore the traditional system of training included nothing, beyond vain exercises of speculative subtlety, but the study of Greek and Roman literature, so rich in lessons of political insubordination. The idea may not have taken fast hold of his mind before the Civil War, when he saw old academic questions fought out upon the field of battle and made to involve a nation's fate; but he had become firmly convinced that lasting peace in the state was impossible unless the sovereign power (whatever it was) took the Universities directly in hand, and used them to instil into the minds of youth the first great duty of paramount obedience to itself. To impress this conviction was one of his chief objects in 'Leviathan,' and he could even

[1] 'An Answer to a Book published by Dr Bramhall, &c.'—E., iv. 279-384.

venture upon the hope that some ruler would see in the book the true manual alike for sovereign and subject, and, "protecting the public teaching of it, convert this truth of speculation into the utility of practice." But also, quite apart from political grounds, he found much to denounce in the backward state of the university-studies, and he argued vehemently for the introduction of the modern science that had grown up outside the academic pale.

At Oxford due note was taken of his sweeping charges and account kept of his self-complacent aspirations. The University was, in fact, just then, after the parliamentary visitation, in a state of healthier activity, at least as regards research, than ever before. In particular, the contrast between the Oxford of 1603, when Hobbes was there, and the Oxford of 1651, when he wrote against it, was as great as any half-century of its annals can show. Science especially was represented by men each in his own line a leader. If Hobbes could say that at the Universities geometry had only lately ceased to be thought a "diabolical" art, no man of that day was so fit as John Wallis, Savilian professor at Oxford, to prove it an advancing science. There was no more forward votary of physical science, as physical science was in the days before Newton, than Seth Ward, the professor of astronomy. With them was leagued John Wilkins, Warden of Wadham College, a man imbued, as they also were, with the experimental spirit of Bacon. That such men, or even far weaker men than Wallis and Ward, would endure to be written down by one who, purposely or ignorantly, spoke of an Oxford that was not theirs, and whose own reputation in science was still

all to make, could hardly be expected; nor were they likely to put themselves at the point of view from which his complaints and suggestions might appear to have some ground in reason. Nothing, however, was said or done openly, beyond a mild reference to Hobbes by Ward in a philosophical essay ('Tetamen de Dei existentia, &c.') published in 1652, till the year 1654.

Early in that year came forth a work entitled 'Examen of Academies,' by the Rev. John Webster, an army-chaplain, inveighing, in the fashion of the day, against the whole system of academic study, and, in the fashion of the century, against Aristotle as answerable for it all. If Webster had shown any discrimination in his attacks or proposals and been less anxious to display his own very ill-digested reading, his book might have been a valuable, as it remains a curious, anticipation of later attempts to break up the Scholastic system of the Universities. As it was, he committed Hobbes's mistake of allowing nothing for actual advance, and so laid himself open to the clever and powerful retort of Ward, who now set himself, in May 1654, to repel such persistent misrepresentation in his 'Vindiciæ Academiarum,' directed mainly against Webster, but with an Appendix devoted to another objector, named Dell, and to Hobbes.

Ward was a man who, when obstinate royalists were being cleared out at the Universities, had no sooner been ejected from a Cambridge fellowship for refusing to take the Covenant, than, without taking it, he managed to slip into his professorship at Oxford. With a clear head, he had early made a reputation in mathematical study when cultivated by few, and, having a great faculty of pleasing, was bent on rising in life. His professorship,

held from the Commonwealth and under Cromwell, separated him so little from his old royalist friends that, years before the Restoration, he had secured from one of the exiled bishops the promise of a place in the Church, whence he afterwards mounted to a deanery and two bishoprics in succession. The same easy-going disposition appears to have brought him earlier into some kind of relation with Hobbes himself; so that it is even said that he had written for the publisher the laudatory notice prefixed to the 'De Corpore Politico.'[1] Certainly, in his philosophical essay of two years later, he did not take exception to some views of Hobbes's without expressing his "high opinion and respect for that worthy gentleman"; and in the Appendix to the 'Vindiciæ' itself traces of the feeling may still be discerned. The traces, however, were well overlaid; for, with the defence of the academic system against Hobbes's assault, went a highly irritating challenge. Wilkins having first, in a letter to Ward, charged Hobbes with arrogance and unfairness, and hinted that not only was the new science of nature better known at Oxford than he supposed, but that, for his own boasted advances in it, he was beholden to another (Warner); Ward repeated the charge of plagiarism; mocked at the pretensions of 'Leviathan,' and, under cover of the ancient Greek schools, which had also been made light of by Hobbes, defended the Universities. That in Hobbes's youth they might have been in a low state, he allowed; but now, he asserted, the discourse in 'Leviathan' was like that of the Seven Sleepers, for the new mechanical philosophy was generally received, and geometry had such place

[1] Hobbes himself mentions the report in E., vi. 336.

that, when Hobbes's geometrical pieces should appear, they would be better understood than he should like,—the allusion here being to his wonderful quadratures of which he seems to have been boasting rather freely.

Nothing could have been better conceived than Ward's clever sally to disconcert and provoke Hobbes, but at first he gave no public sign. Nor, when the 'De Corpore' at last came forth, about the middle of 1655, was there any show of petulance or other weakness in the front: the prefatory epistle to the Earl of Devonshire, rather, was couched in a tone of dignified self-confidence. After ascribing the beginnings of true Natural Philosophy in modern times to Copernicus and Galileo, followed by Kepler, Gassendi and Mersenne, and of true science of the human body to Harvey, Hobbes made bold to say, in face of his detractors, that true Civil Philosophy was no older than his own book 'De Cive'; and, as there he had put an end to baleful strife in religion and politics engendered by ancient and Scholastic speculation, so he would now dispel the phantoms of metaphysics by his doctrine of Body; soon to be followed by a doctrine of Man, though he had experience how much greater thanks would be due than paid to him for telling men the truth about themselves. Oddly enough, however, after such lofty pretension and disdain, the text was found to include, at the place pointed at by Ward, a most *naïve* allowance of scientific shortcoming and outburst of bitterness. It was in the chapter (20) devoted to what Hobbes thought the crowning achievement of his scientific method—the squaring of the circle and solution of other related problems sent down from ancient times, which he had fastened upon early in his late mathemati-

cal career, not without a philosophical reason and purpose but more perhaps under the fascination that has possessed so many half-trained minds. What then did his achievement amount to? A quadrature announced as false, because from a false hypothesis; a second, merely approximate; a third, with a method for the section of angles at will, given first as exact, but at last as only "problematically said"—that was all. With perfect simplicity he added that he should have held the hypothesis in the first attempt as true, had not the insults of malevolent men forced him to look into it more closely with his friends; the third attempt he had seen to be open to objection only after it was printed. Still he would let stand what he had said of Vindex, meaning more than one passage of triumphant recrimination against Ward, printed, as was evident, with the solutions when he had thought them all good.

In truth, the position of Hobbes was even weaker than it thus appeared, as one man of keenest scent discovered and set himself forthwith to expose. No sooner was the book out than Ward (Vindex) and Wallis, who, it is clear, had from the first been accessory to his colleague's tactics, settled between them how they should dispose of it. Wallis was to confine himself to the mathematical sections, Ward to the philosophical and physical sections, keeping his eye also on Hobbes's other works. More than a year passed before Ward performed his part in the joint enterprise ('In T. H. Philosophiam Exercitatio epistolica'). Very different was the action of Wallis, who from this time passes to the front. In some three months he had ready his terrible 'Elenchus Geometriæ Hobbianæ.' Not only was Wallis,

from his mathematical knowledge and logical power, better fitted than any man in England to criticise Hobbes, but he had also certain more special qualifications for such a task as that had become. Not overscrupulous about means when he had an end in view, whether it was personal advancement or dialectical victory, he had an extraordinary analytic faculty that had won him notoriety when exercised in deciphering for the Parliament the king's papers taken at Naseby, and now had easier play in tracking the sad windings of Hobbes's mathematical march. But for the malice and ingenuity of Wallis, we should never have known the depth of Hobbes's infatuation over those unhappy problems or the incredible courses into which he plunged in his resentment of Ward's original stroke.

Finding at the bookseller's an unbound copy of the 'De Corpore,' Wallis observed the sheets to be greatly mutilated, especially at the place treating of the measure of the circle to which he first turned. He could see, in confirmation of a flying report of Hobbes's difficulties, that the chapter, as first printed, had been replaced by another, which had again been partly sacrificed to make way for a third attempt, before the singular enough result that appeared was finally reached. The value of the chapter as it stood Wallis quickly gauged, and saw to be even less than its author, despite his *naïve* confessions, still claimed for it. Perceiving further that the rest of the mathematics in the book was of neither worse nor better quality, Wallis was first, he says, moved to anger, then to mirth and at last to pity. Not in pity, however, was conceived the 'Elenchus' which he proceeded to draw up. One of some copies care-

lessly issued in the first unamended form having fallen into his hands, he was not the man to scorn such a weapon of ridicule, and from it, with his unbound copy, he was able to spell out the whole history of Hobbes's doings from the time of Vindex's challenge. This accordingly he laid bare, showing how, shaken from a brief illusion of triumph by friends concerned for his reputation, again and again during the year had Hobbes persisted in printing loose assumptions as strict truths, and rough and contradictory approximations as exact solutions of an impossible problem; till at last, rather than delay his book longer, he was fain to be content with his lame and impotent conclusions, made grotesque by the side of the jubilant bursts which he had not the heart to suppress, because he had once had the joy of giving vent to them. Otherwise, Wallis dogged Hobbes at every step, questioning his definitions, reducing his methods to absurdity, probing with a touch that never faltered the weak places of his lumbering demonstrations, and all through never changing the tone of coarse mockery except to fall into a still more irritating vein of solemn sermonising.

Where another must have succumbed to such an assault, it is no wonder that Hobbes was stirred to a mood of fierce resentment. His whole character as a philosopher seemed to him to be staked on his ability to repel the onslaught of Wallis and in turn become assailant. However, he was so far careful, in superintending an English translation of his 'De Corpore,' which appeared about the middle of 1656,[1] as to profit by not a few of his critic's exceptions, and especially to

[1] E., i.

obliterate the traces of his passionate indiscretion. All mention of Vindex was struck out, and besides other changes quietly yielded to Wallis's invective, a new series of mere "aggressions" took the place of the old pretentious solutions, with the result that the translation, though often loose and erroneous, was much less open to attack than the original. But the book had a tail, and the tail a sting. 'Six Lessons' were appended for the instruction of the two Oxford professors,[1] or rather of Wallis, Vindex being only drawn in for correction of his "Manners" in the last. In these, after rehearsing his own "Principles" against Euclid's, Hobbes proceeded to expose Wallis's "Paralogisms" with no lack of dialectic subtlety. Only, there seemed to rest a fatality on all his mathematical doings. Whether it was that, coming so late to mathematics, he could never quite bend himself to the conditions of rigid thought and consistent statement, or that he was now too angry to be master of his pen, at points the most delicate and critical he fancied it open to him to plead any amount of haste and negligence, without lowering his head, if he could only add that he had known better. Nay, he could even fight in the 'Lessons' for points that he had surrendered in the translation. And when he turned to assume the offensive, his attitude became simply ridiculous. Three works of Wallis's—one on the nature of the Angle of Contact, another on Conic Sections treated algebraically, and the third, 'Arithmetica Infinitorum,' in which had been taken the last great stride towards the discovery of the higher calculus made before the end of that generation by Newton

[1] E., vii. 181-356.

and Leibniz—he ventured to impugn. His objections amounted to nothing, even when they did not, as in regard to the last-named work, betray an utter misapprehension of Wallis's ingenious methods: to the 'Conic Sections,' being ignorant of algebra, he could do no more than say that it was "so covered over with the scab of symbols," that he had no patience to examine it. At the end of the lesson on "Manners," he gravely set himself to show that he could give "as scornful names" as any he had received; and here he was successful enough.

Wallis, ever ready, was again to the front in three months' time, measuring out, in English, 'Due Correction for Mr Hobbes, or School-Discipline for not saying his Lessons right.' Having an easy task in defending himself against Hobbes's trivial objections to his own works, he snatched the opportunity given him by the translation of the 'De Corpore' to track Hobbes again with a merciless persistence, step by step, over the whole course, and confront him with his inconsistencies multiplied by every new utterance. But it was no longer a fight over mathematical questions only: two men, each in his way a master of verbal fence, stood committed to blackening or ridiculing each other by every means, fair and foul. Wallis having stooped from the first to the pettiest carping at words, Hobbes had not refrained from retorting in kind, and then, of course, it became the duty of the other to defend his own Latin with much parade of learning and launch new darts. It was a coarse sally of this verbal kind, begotten of Wallis's too lively fancy, that suggested to Hobbes the title of the farther rejoinder with which in 1657 he sought to end the unseemly wrangle. Arguing in the 'Lessons' that

a mathematical point must have quantity, though this were not reckoned, he had interpreted the Greek word *στίγμη*, used for a point, to mean a visible mark with a hot iron; and thereupon Wallis burst forth into an insulting paragraph, charging him with making a gross and ignorant confusion of *στίγμη* and *στίγμα*. Hence the title of Hobbes's new reply: '*Στίγμαι Ἀγεωμετρίας, Ἀγροικίας, Ἀντιπολιτείας, Ἀμαθείας*, or Marks of the Absurd Geometry, Rural Language, Scottish Church Politics and Barbarisms of John Wallis, &c.'[1] In this piece, prefaced by the characteristic remark that, after the title-page, which was "somewhat coarse," he gave "no more ill words" but returned from Wallis's manners to his own, he attacked the 'Arithmetica Infinitorum' more in detail, but not more happily, than before. Otherwise, he repelled, not without some force and dignity, the insults heaped upon him, and fought the verbal points, but could not leave the field without straying into a line of political insinuation against his adversary perfectly irrelevant, and only noteworthy as evidence of his own resignation for the time to Cromwell's rule. The thrusts were nimbly parried by Wallis. The objections to the 'Arithmetica Infinitorum,' directed mainly against the expression of proportions by fractions, came simply to this, that Hobbes could not see how a groat and twopence made sixpence; the charge of rustic language might be met by Hobbes's confessions of his own sins; the political charge was only that he (Wallis) did not

[1] E., vii. 357-428; including (pp. 401-427) an "Extract of a letter concerning the grammatical part of the controversy," from Henry Stubbe, who was now ready to take part against Wallis, as later on he assailed the Royal Society, of which Wallis was a chief founder.

take 'Leviathan' for gospel. Otherwise, the reply turned chiefly on the verbal question, whence its title, 'Hobbiani Puncti Dispunctio.' Irritating as it was, it did not avail to shake Hobbes's determination to be silent; and so at last there was peace for a time.

II.—With Wallis and Boyle.

Hobbes held his hand in 1657, but apparently it was only in order to delay no longer the completion of his philosophic trilogy. When at last, in 1658, he published the 'De Homine,' he took care to intimate that he would still keep hold of the pen he had then hoped finally to throw away—"for this piece too, perchance, would have to be defended." There, however, he was mistaken. The larger (optical) part of the ill-compacted work touched nobody closely enough to excite opposition; and in the few chapters on topics of human nature appended in excuse of the title there was little, if anything, to which he had not given repeated expression before. His challenge upon other issues being left unheeded, if he was not to appear as utterly crushed by Wallis's last blow, he could only resume the old conflict. His opponent had continued busily productive, in particular publishing in 1657 a comprehensive treatise on the general principles of calculus ('Mathesis universalis'). With some more special reference to this work, the pugnacious old man now conceived the idea of using his new-found leisure to fight the whole ground over again.

By the spring of 1660 he had put the reassertion of his own positions and more detailed criticism of Wallis's works into the form of five Latin Dialogues, with

an appendix of some seventy propositions on the circle and cycloid, labelled as a sixth Dialogue, because of some interlocutory remarks (of more general interest) at the close; the whole bearing the title of 'Examinatio et Emendatio Mathematicæ hodiernæ, qualis explicatur in Libris Johannis Wallisii, &c.'[1] Wallis afterwards protested that the interlocutors, called A and B, were none other than "Thomas and Hobbes," and their dialogue but a way "wherein Thomas commends Hobbes, and Hobbes commends Thomas, and both commend Thomas Hobbes as a third person, without being guilty of self-commendation;" also as a way in which, as he could not bear contradiction from others, he might give free rein to his habit of contradicting himself.[2] At the time, finding nothing in either part of the piece that he had not met over and over again (though Hobbes had attempted to urge somewhat deeper objections to the algebraical treatment of geometrical questions), he was not to be drawn into reply. Hobbes was then driven upon trying another tack.

In the following year, 1661, having solved, as he thought, one more of the ancient problems that had been the despair of pure geometers, the duplication of the cube, he had his solution brought out anonymously at Paris in French, so as to put Wallis or other critics off the scent, and extort the judgment that apparently was now to be denied to any mathematical work of his. The artifice proved successful, and he could now again

[1] L., iv. 1-232; but here (as noted above, in another connection, p. 31, n.) Molesworth follows Hobbes's reprint of 1668, which omits, at the beginning of the sixth so-called dialogue, the propositions on the circle, forty-six in number, shattered by Wallis in 1662.

[2] 'Hobbius Heautontimorumenos' (1662), 15.

keep the ball rolling. No sooner had the solution, imported from Paris, been publicly refuted by Wallis, than he hastened to own it and went more perversely than ever astray in its defence; republishing it (still in 1661) in a modified form, with much self-gratulation, at the end of a new Latin Dialogue which he had meanwhile written in support of another part of his scientific doctrine, insidiously impugned by the enemy. A society had just been founded for purposes of physical research, with Wallis as one of its most active members and no place for the author of 'De Corpore.' In point of fact, the band of scientific workers among whom Wallis was foremost had as far back as 1645 formed an association in London, not unlike that which Hobbes had known in Paris around Mersenne, and through all the distraction of the civil troubles had maintained some semblance of unity there or at Oxford, where Wallis, with Ward and Wilkins, had been settled since 1649, joined later on (in 1654) by Robert Boyle. On the Restoration, Boyle and others, with such assistance as the Savilian professor could still render from Oxford, drew together again in the capital, at Gresham College, and afterwards acquired incorporation as the Royal Society, in 1662. In the new combination of 1660, there could have been no thought among the chief movers of including an Ishmael like Hobbes, after the proof he had given of mathematical incompetence and of disinclination for the laborious experimental work that was meant (in the spirit of Bacon) to be pursued; but it was not unnatural that Hobbes should resent the exclusion, dictated, as he believed, by the spite of Wallis. Boyle's 'New Experiments touching the Spring of the Air,' recording work

with the air-pump carried on during recent years at Oxford, having then just appeared, Hobbes was ready in his chagrin to take it as a manifesto of the new "academicians," and even to construe it as an attack upon his own physical doctrine—which was in fact pointed at here and there. How so effectively expose the whole manœuvre as by showing that the mass of facts obtained with so much experimental trouble by Boyle did, when rightly interpreted, only confirm the conclusions he had himself worked out years before from rational principles? This he now did in the 'Dialogus Physicus, sive de Natura Aeris;'[1] warning Boyle and his associates that they might meet as they liked and compare notes and experiments, but, unless they started from where he himself left off, their labour would be all in vain.

To as much of this hostile diversion as concerned himself Boyle quickly replied, with characteristic force and dignity, in 'Examen of Mr Hobbes, his Dialogus, &c.' (1662), returning to the subject also in a 'Dissertation on Vacuum against Mr Hobbes' twelve years later; but it was from Hobbes's old enemy that retribution came. Wallis, who had deftly steered his course amid all the political changes of the time, managing ever to be on the side of the ruling power, was now apparently stung to fury by a wanton allusion in the 'Dialogus' to his old achievement of deciphering the defeated king's papers, whereof he had boasted in his 'Inaugural Oration,' as Savilian professor, in 1649, but after the Restoration could not speak or hear too little. The revenge he took was crushing. Professing to be roused by the attack on his friend Boyle, when he had scorned

[1] L., iv. 233-296.

to lift a finger in defence of himself against the earlier Dialogues, he tore them all to shreds, with a more consummate art than ever, in the scathing satire, 'Hobbius Heautontimorumenos' (1662). He got, however, upon more uncertain ground when, coolly passing by the political insinuation against himself, he roundly charged Hobbes with having written 'Leviathan' in support of Oliver's title and deserted his royal master in distress. Hobbes seems to have been fairly bewildered by the rush and whirl of sarcasm with which Wallis drove him anew from every mathematical position he had taken up from first to last, and did not venture forth into the field of scientific controversy again for some years, when once he had followed up the Dialogue of 1661 by seven shorter ones, on vacuum and other physical topics, entitled 'Problemata Physica,' in 1662.[1] But all the more eagerly did he take advantage of Wallis's loose calumny to strike where he felt himself safe. His answer to the personal charges took the form of a letter about himself, in the third person, addressed to Wallis in 1662, under the title of 'Considerations upon the Reputation, Loyalty, Manners, and Religion of Thomas Hobbes.'[2] In this piece, which is of great biographical value, he told his own and Wallis's "little stories during the time of the late rebellion" with such effect, that Wallis, like a wise man, attempted no further reply. So ended the second act.

[1] L., iv. 297-384; including an appendix of sixteen propositions on the magnitude of the circle, with a new exposition and defence of his duplication of the cube. The work was at the same time put into English (with appendix shortened) as 'Seven Philosophical Problems, &c.' (E., vii. 1-68), and presented to the king, but was not published in this form till twenty years later (1682).

[2] E., iv. 409-440.

III.—With Wallis.

After a pause, Hobbes took heart again; and, keeping Wallis always in face, did not finally cease from aggression till he was ninety. The pieces, more or less controversial, that went on appearing at intervals through all these closing years of his life, may be very briefly characterised. The first, published in 1666, 'De Principiis et Ratiocinatione Geometrarum,'[1] was designed, as the subtitle declared, to lower the pride of geometrical professors, by showing that there was no less uncertainty and error in their works than in those of physical or ethical writers. To this had come at length the philosopher who, in his earliest work, had pointed the difference between "mathematical" and "dogmatical" learning, and proclaimed that never was it "heard of that there was any controversy concerning any conclusion" in mathematics! Now, as he had to confess, he stood on one side with "almost all geometers" over against him, and could but add, with a grim humour, "Either I alone am mad, or I alone am not mad; other alternative there is none, unless, perchance, some one may say that we are all mad together." Some piquancy there was in his condensed restatement of the old points, but they were only restated. Wallis replied shortly in the 'Philosophical Transactions' of August in the same year.

Next, in 1669, the octogenarian brought together his three crowning solutions in a new compendious form,—'Quadratura Circuli, Cubatio Sphæræ, Duplicatio Cubi,'—and, as soon as they were all once more refuted in a pamphlet from Wallis, reprinted them, with an answer

[1] L., iv. 385-484.

to the objections, in compliment to the Grand Duke of Tuscany who paid him attentions on a visit to England in that year.[1] Wallis had declared that he would leave him alone henceforward, but refuted him again, in another pamphlet, before the year was out.

Two years more passed, and now the whole series of his greater achievements was presented in 'Rosetum Geometricum,' as a fragrant offering to the "geometrical reader,"—the "algebraical reader" being, for *his* part, confronted with a number of plain questions directed upon the absurdity of Wallis's conception of infinite quantities; while an express criticism ('Censura brevis') was appended, at some length, on the first part of the treatise 'De Motu' (1669), in which Wallis had just made physical application of his analytical method.[2] Also in the same year (1671) he sent 'Three Papers' to the Royal Society, treating very briefly of points selected from those now in dispute, and when Wallis, still not weary of confuting, shortly replied, published them separately with triumphant 'Considerations upon the Answer of Dr Wallis.'[3] No rejoinder following, he could now believe that at last he had established himself with the scientific authorities, and that the way was open to complete the discomfiture of the foe by a public memorial to the Society from R. R. (Roseti Repertor) on all the questions at issue from the beginning—'Lux Mathematica excussa collisionibus Johannis Wallisii et Thomæ Hobbesii,' the light being now "increased by many and most fulgent rays."[4] This was in 1672.

[1] L., iv. 485-522.
[2] L., v. 1-882.
[3] E., vii. 429-448.
[4] L., v. 89-150.

Wallis, so challenged, replied once more briefly in the 'Transactions,' and then finally held his hand.

Not so Hobbes. In 1674, at the age of eighty-six, he was again in the field with 'Principia et Problemata aliquot Geometrica, ante desperata nunc breviter explicata et demonstrata;'[1] managing even now, in the chapters dealing with questions of principle, to throw out some original observations of the kind that lie strewn throughout the mathematical works and redeem them from the reproach of utter waste. His last piece of all, 'Decameron Physiologicum,'[2] published four years later, when he had completed his ninetieth year, was a new set of dialogues on physical questions, in the fashion of the earlier ones, but now with a stroke added at Wallis's doctrine of gravitation in the 'De Motu.' And a demonstration of the equality of a straight line to the arc of a circle was, of course, thrown in at the end, to show him true as ever to the desperate purpose that had maintained the long quarter of a century of strife.[3]

[1] L., v. 151-214. [2] E., vii. 69-180.

[3] This final demonstration has (with one or two before it) the merit at least of brevity, which Hobbes ended by aiming at after he had been convicted by Wallis of losing himself in the extreme complexity of his earlier constructions. Among all Wallis's many exposures of the incoherence and futility of his quadratures, the most brilliant, as well as comprehensive, is given in 'Hobbius Heautontimorumenos,' 104 ff. Up to that time (1662), Wallis reckons twelve different attempts at least, all more or less inconsistent with one another. Wallis's contributions to the controversy, having done their work (only too ruthlessly), were excluded from the collected edition of his writings (1693-97) and have become extremely rare.

CHAPTER VIII.

LAST YEARS (1658-79).

THE last years of Hobbes's long life were not so engrossed with the labour of (as he fondly thought) routing Wallis and the new experimenters from the scientific field, that he did not find time and have spirit to keep his pen going on other lines, which had interested him in the years before he turned to science, or which had claimed his chief regard even when he was busy with the work of general philosophical construction. He returned no more (except in polemical references) to questions of general philosophy after satisfying himself, at the age of seventy, with the 'De Homine' as the fulfilment, in some fashion, of his ambitious design; but the deeper political interest was still to manifest itself in a series of lighter writings, and the scholarly interest of his early manhood was to be revived, after the age of eighty, in no less ambitious a form than an attempt at metrical translation of the 'Iliad' and 'Odyssey.'

With the restoration of the monarchy in 1660, a new experience opened for him. Till then, though he lived mainly in the capital and mixed freely in the literary

and scientific society gathered there,[1] he was too little in sympathy with the ruling powers to seek or be drawn into any kind of public association with them. He did nothing indeed, all through the Protectorate, to mark the least discontent with the existing Government. This his political principles forbade; and with Independency he could at least sit down in peace, since it left him his individual freedom of thought, as Presbyterianism on principle could not leave it and Anglicanism was too little content to leave it in practice. None the less, after the time of unsettlement and anarchy following on

[1] At this time he consorted chiefly with Selden and Harvey, and received from each, at their deaths, a legacy of ten pounds—from Selden in 1654 and from Harvey in 1657. Aubrey ('Life,' 628) says: "When his 'Leviathan' came out, he sent . . . a copy of it well bound to Mr John Selden *in Ædibus Carmeliticis*. Mr Selden told the servant he did not know Mr Hobbes, but had heard much of his worth, and that he should be very glad to be acquainted with him; whereupon Mr Hobbes waited on him,—from which time there was a strict friendship between them to his dying day." The curious scene with Hobbes at Selden's deathbed, reported by Aubrey ('Lives,' ii. 532), is contradicted by another (but a later) report in the Rawlinson MSS., quoted in Macray's 'Annals of the Bodleian' 77, n. With Harvey, Hobbes's intimacy was of old date. Harvey (not Bacon) is the one Englishman he mentions among his predecessors in the Dedication of the 'De Corpore'—"the only man I know that, conquering envy, hath established a new doctrine in his lifetime."

Hobbes had no relations, now or later, with Milton, but there is record of what each thought of the other. Milton's widow told Aubrey ('Lives,' ii. 444) that "her husband did not like Mr Hobbes at all, but he would acknowledge him to be a man of great parts and a learned man." Hobbes, in 'Behemoth' (E., vii. 368), thus pronounces on the two famous 'Defensiones' of Salmasius and Milton: "They are very good Latin both, and hardly to be judged which is better; and both very ill reasoning, hardly to be judged which is worse,—like two declamations, *pro* and *con*, made for exercise only in a rhetoric school by one and the same man. So like is a Presbyterian to an Independent!"

Cromwell's death, it was with a sense of real relief that he welcomed back the old civil order. He had spent the winter of 1659-60[1] with his patron in Derbyshire, and, coming up to London in the spring that saw the revived Long Parliament finally dissolved under the auspices of Monk and a new one summoned, he vented his feeling in the last lines of his 'Six Dialogues,' written just as the Convention was giving effect to the foregone conclusion that the king should be recalled.[2] His interests and personal sympathies were all engaged on the side of the legitimate ruler. What might he not expect if the King of England, come to his own again, should henceforth take 'Leviathan' for a chart to govern by as sovereign had never governed before!

The restored prince was, in fact, well enough disposed to accept principles that were now turned all in his own favour, and to patronise their author whose lively wit he had relished from the old time of the mathematical lessons. Even when he had been so far worked upon by his counsellors as to refuse to see Hobbes after the publication of 'Leviathan' in 1651, his own feeling of displeasure was so little enduring that he had had an expression of his good opinion conveyed in the following year to the philosopher in England, and he was heard to declare "openly that he thought Mr Hobbes never meant him hurt."[3] It was natural, then, that now, when he had passed from adversity and exile to power, he should warm to his old favourite. Aubrey tells of their first meeting and what came of it:[4] "It hap-

[1] 'Life,' 611; also the previous year, as appears from a letter in Hardwick MSS.

[2] L., iv. 231. [3] E., iv. 424. [4] 'Life,' 611.

pened about two or three days after his Majesty's happy return, that, as he was passing in his coach through the Strand, Mr Hobbes was standing at Little Salisbury House gate (where his lord then lived); the king espied him, put off his hat very kindly to him, and asked him how he did. About a week after he had oral conferences with his Majesty and Mr S. Cowper, where, as he [the king] sat for his picture, he was diverted by Mr Hobbes's pleasant discourse. Here his Majesty's favours were redintegrated to him, and order was given that he should have free access to his Majesty, who was always much delighted with his wit and repartees. The wits at Court were wont to bait him; but he would make his part good, and feared none of them. The king would call him the Bear: *Here comes the Bear to be baited.* He was marvellous happy and ready in his replies, and that without rancour (except provoked)." Aubrey also mentions that a portrait of Hobbes himself, by the same painter, was at this time purchased by the king, who kept it "as one of his greatest rarities in his closet at Whitehall." And a substantial mark of the royal favour was added in a yearly pension of £100 from the privy purse, though the payment ceased when darker days came, and apparently was never resumed.[1]

The effect of such treatment upon Hobbes himself may easily be conceived. It was not in him to think ill of a king who, whatever his other shortcomings, could give the author of 'Leviathan' his due, and might seriously apply its lessons in the true art of govern-

[1] 'Vit. carm. exp.' (L., i. p. xcviii.); compare Hobbes's (undated) petition, E., vii. 471, and the mention of arrears in his Will, 'Life,' 637.

ment. He had also been too hard pressed in the scientific encounters of the last years, and too vehemently denounced for his political and religious heresies, not to be elated by the high countenance he now received, and to welcome the support he might henceforth expect against his foes. Foes he had at Court in the bishops and Chancellor Hyde (whom it doubtless was no small part of the king's pleasure in favouring him to be able to shock); but he also had powerful friends who stood by him when the need came. Foremost among them was Sir Henry Bennet, made Secretary of State in 1662 and Lord Arlington in 1665, a concealed Catholic, like the king himself, but willing, like him, from personal sympathy with Hobbes's principles or from calculation, to maintain the influence of the hardy thinker against the traditional order of the English Church and State. Crowds of lesser men, also, at such a time as that of the Restoration, were only too ready to swear to the words of a master whom the king delighted to honour, and as "Hobbists" to appear not only as king's men but as standing at the farthest remove from the principles and ways of Puritanism. Nor was Hobbes, it must be confessed, exactly the man to be particular as to the quarter whence support might reach him, if it seemed to help forward the practical realisation of his long-cherished hopes. Whatever the gravity of his own scientific purpose had been and always remained, there is no evidence that his spirit revolted against any of the disgraceful features of the restored monarchy. Amid all the national disaster and shame he lived to see, he betrays no dissatisfaction with the reckless voluptuary who was always ready to shield him from harm; and

there is even to be traced in his later writings an exaggeration of absolutist sentiment foreign to the reasoned demonstrations of his earlier time.

It was not long, even at that time of royalist enthusiasm, before he stood in need of protection. The Cavalier Parliament that succeeded the Convention in 1661 and prolonged its existence till 1679, the year of Hobbes's death, preserved one fixed determination through all its broken career—to maintain the interests of the episcopal order of the English Church against every shade of Protestant nonconformity on the one hand and against Papacy on the other. It could go the utmost length with Hobbes in protesting the inviolability of the sovereign and the subject's duty of passive obedience, but this always upon an assumption that the king could not be wanting to the Church that had suffered with his father. That no man could be a true royalist who was not a true Churchman—this was the conviction which the dire events of the Revolution had wrought into the minds of the main body of the English people, represented once more by its ancient Parliament. Now Hobbes, the religious free-thinker and indifferentist in the matter of ecclesiastical forms, was certainly no true Churchman; while his royalism, though never so loudly proclaimed, was tainted at its spring from a theory of popular choice. It was also some consolation to faithful Churchmen to be able to ascribe to such false teaching as his that licence of king and Court which did not gall the less because they were bound in duty to bear with it as patiently as they might. Thus it happened that just after the Restoration, when "Hobbism" was openly professed in high places and came into fashion

with a noisy band of adherents, the author of the scientific system which lent itself to their superficial construction or perversion was also more strenuously denounced, as the arch-enemy of morality and religion, than ever he had been before.

More especially after 1660 begins the series of weightier attacks upon the principles of 'Leviathan,' which, as they were mostly left unnoticed by Hobbes, will be considered by themselves in a succeeding chapter. What he felt at the time, under the charges and insinuations brought against him, may be gathered from two utterances belonging to the year 1662. One is the bold and saucy reply ('Considerations upon the Reputation, &c.') on which, as we have already seen (p. 182), he judged that he could venture against such a turncoat as Wallis. The other, contained in a dedication to the king of his 'Problemata Physica,' is very different in tone. Here he is fain to take refuge under the general amnesty proclaimed at the Restoration, and seeks also to mitigate the effect of his enemies' invective by pleading that he had never dogmatised on religious points or repeated the expression of his opinions since the Anglican Church had been again set up where no authority was at the time of his writing. Against Episcopacy itself he had not written, nor had he given other ground for the attacks that bishops (as he heard) had made upon 'Leviathan' in Court-sermons; while, if some found fault even with the milder doctrine of 'De Cive,' nothing could really be urged against him but that he sought to make the authority of the Church dependent on the royal power—"which," he slily adds, "I hope your Majesty will think is neither atheism nor heresy."

"But what" (he goes on) "had I to do to meddle with matters of that nature, seeing religion is not philosophy but law? It was written in a time when the pretence of Christ's kingdom was made use of for the most horrid actions that can be imagined; and it was in just indignation of that, that I desired to see the bottom of that doctrine of the kingdom of Christ which divers ministers then preached for a pretence to their rebellion; which may reasonably extenuate, though not excuse, the writing of it. There is therefore no ground for so great a calumny in my writing. There is no sign of it in my life; and for my religion, when I was at the point of death at St Germain's, the Bishop of Durham can bear witness of it, if he be asked. Therefore I most humbly beseech your sacred Majesty not to believe so ill of me upon reports that proceed often, and may do so now, from the displeasure which commonly ariseth from difference in opinion; nor to think the worse of me, if, snatching up all the weapons to fight against your enemies, I lighted upon one that had a double edge."[1]

The words have already more of fear than of assurance in them, and when we come next upon his traces, the fear has gained upon him, with reason. The Great Fire of 1666, following upon the Great Plague of the previous year, could not but seem to the common mind a judgment on the nation that tolerated such licentiousness as had now for six years run riot in the Court of Whitehall. Hardly was the fire got under when Parliament, meeting (Sept. 21) to devise measures of relief for the sufferers by its ravages, seized the opportunity to give expression to the uneasy conscience of the people in a bill against atheism and profaneness. On the 17th October, the 'Journal of the Commons' bears the order "that the Committee to which the Bill against

[1] English version in 'Seven Philosophical Problems' (E., vii. 5).

Atheism and Profaneness is committed be empowered to receive information touching such books as tend to atheism, blasphemy, and profaneness, or against the essence and attributes of God, and in particular the book published in the name of one White[1] and the book of Mr Hobbes called the 'Leviathan,' and to report the matter with their opinion to the House." What steps were thereupon taken does not appear, but after repeated delays the bill finally passed the Commons on the 31st January following. Referred to a select committee in the Lords, it was dropped in that session, nor, when re-introduced next session in the Upper House, did it again reach the Commons; so that after a time Hobbes's fears were lulled. At first the old man, now verging upon eighty, was not a little terrified by the parliamentary proceedings. It may have been earlier that, according to

[1] Thomas White—passing also under other English surnames and in Latin as Albius or Anglus ex Albiis—a Catholic priest, who, after teaching at Douai and elsewhere, spent the latter part of his life in England under ecclesiastical suspicion and even censure for the opinions he had put forth in a variety of works. In his 'Grounds of Obedience and Government,' published in 1655 under the Protectorate, he had spoken still more boldly than Hobbes in favour of maintaining the actual government; but it was his book 'Of the Middle State of Souls' (translated in 1659 from the Latin of 1652) that now caused him to be coupled with Hobbes, apparently on the ground of their common denial of a natural immortality. They were friends, and Wood in 'Ath. Ox.,' under the name of Glanvill (against whom White wrote), reports: "Hobbes of Malmesbury had a great respect for him, and, when he lived at Westminster, he would often visit him and he Hobbes, but seldom parted in cold blood: for they would wrangle, squabble and scold about philosophical matters like young sophisters, though either of them was eighty years of age; yet, Hobbes being obstinate and not able to endure contradiction (though well he might, seeing White was his senior), those scholars who were sometimes present at their wrangling disputes held that the laurel was carried away by White." White died in 1676 at the age of ninety-four.

Aubrey,[1] he sought to make himself safe by burning his papers, but there is other evidence of his alarm. White Kennet, reporting the gossip that lingered long afterwards in the Devonshire household, says, the "terror upon his spirits made them sink very much: he would be confessing to those about him that he meant no harm, and was no obstinate man, and was ready to make any proper satisfaction."[2] With timidity, however, there always went in Hobbes a characteristic determination. He set himself to inquire into the actual state of the law of heresy in England and became satisfied that, from the time when the High Commission was put down by the Long Parliament, there remained no court of heresy in England to which he was answerable,—not to say that even when it stood his doctrine was blameless, as not being (he considered) at variance with the true reading of the Nicene Creed. This plea he at once set forth, first publicly in an appendix to the Latin translation of

[1] 'Life,' 612.

[2] 'Memoirs of the Family of Cavendish' (1708), 15. Some other touches are added that are not without an air of versimilitude: "It is much to be doubted that upon this occasion he began to make a more open show of religion and church communion. He now frequented the chapel, joined in the service, and was generally a partaker of the holy sacrament. And whenever any stranger, in conversation with him, seemed to question his belief, he would always appeal to his conformity in divine services and referred them to the chaplain for a testimony of it. Others thought it a mere compliance to the orders of the family, and observed that in city and country he never went to any parish church, and even in the chapel upon Sundays he went out after prayers and turned his back upon the sermon; and when any friend asked the reason of it, he gave no other but this, '*They could teach him nothing but what he knew.*'" He spoke of the chaplain, Dr Jasper Mayne, at other times as "a very silly fellow." Between them, says Wood ('Ath. Ox.,' iii. 971), "there never was a right understanding"—as may be readily supposed.

his 'Leviathan,'[1] which came out in 1668, and also in the tract, 'An Historical Narration concerning Heresy and the Punishment thereof,'[2] kept back from this time till 1680, after his death.

Arlington appears to have stood between him and any possible harm from the parliamentary denunciation; while, in the last resort, he could always count upon the indulgence of the king. In 1666, when publishing the mathematical tract with which he reopened for the long last time the strife with Wallis, he addresses the Secretary of State as the special protector of his old age; and there is extant, besides, a letter, of June 1667, which conveys thanks to Arlington and the Under-Secretary Williamson for "their mediation."[3] As for the king, it was not to be supposed that he would suffer serious hurt to Hobbes, but from this time forth he seems to have made it a condition that the philosopher should not further provoke the popular sentiment. Nothing more in English from Hobbes's hand that had any political or religious reference was permitted to see the light as long as he lived.[4] Even for a collection of his writings in Latin, he had not, since 1663, been able to procure the necessary licence at home, but had had to resort to the Amsterdam publisher Blaeu. The most remarkable feature of this edition, when at last it appeared in 1668, was the translation of an altered 'Leviathan.'[5] It was

[1] L., iii. 539-559. [2] E., iv. 385-408.

[3] 'Catalogue of State Papers,' Domestic, vol. cciv.

[4] Pepys writes on Sept. 3, 1668: "To my bookseller's, for Hobbes's 'Leviathan,' which is now mightily called for; and what was heretofore sold for 8s. I now give 24s. for at the second hand, and is sold for 30s., it being a book the bishops will not let be printed again."

[5] 'T. H. M. Opera Philosophica, quæ Latine scripsit, Omnia,' Part

only natural that the special references or allusions to the state of political affairs as they stood in 1651 should now be omitted, but otherwise the exposition was considerably shortened and occasionally toned down in the political and ecclesiastical sections. A few of the more hazardous expressions on points of theology were abandoned in deference to the outcry they had excited; though, when they turned upon the interpretation of actual passages in Scripture, he was not afraid still to maintain his most peculiar opinions. He gave, as the reason for his Latin rendering now of a book originally written in such different circumstances, that he wished its principles, of lasting importance as they were, to be rescued from suppression at the hands of those who most had profited by their bold statement. At the end, in three short dialogues appended in place of the old "Review and Conclusion," besides bringing forward his historical view of heresy in connection with his reading of the Nicene Creed, he did his best to palliate when he could not defend the more startling of his theological propositions.

Though he could not get them printed, it was about this time (towards 1670) that he composed the more important of his later works—remarkable enough productions from a man of his years. Besides the 'Heresy' tract and the 'Answer to Bishop Bramhall,' formerly mentioned—the latter of which can be definitely referred to the year 1668—three works are to be noted, 'Behe-

iii.; in Molesworth, L., iii. Besides the three systematic works forming Part i., the collection of 1668 included reprints also of the mathematical and physical pieces from 1660 (Part ii.) Sorbière was again the intermediary, negotiating the publication on his return from a visit to England in 1663, as appears by a letter in Hardwick MSS.

moth,' 'The Common Laws,' and the metrical 'Historia Ecclesiastica,' all in dialogue-form. 'Behemoth: the History of the Causes of the Civil Wars of England, and of the Counsels and Artifices by which they were carried on from the year 1640 to 1660,' was submitted to the king on its completion, about the year 1668, and was by him flatly proscribed. Hobbes was eager to have it published, but bowed to the royal decision and himself faithfully conformed to it. Some months, however, before his death in 1679, the book found its way into print from a surreptitious and imperfect copy that some one had taken of the MS.; other spurious editions following before the first authoritative impression in 1682.[1] It gives in extremely spirited style his whole view of the social and religious conditions that led to the Revolution, with the story of its course from first to last; urging at the same time, in particular, the sovereign's "right of militia," the denial of which, it seemed to him, had originally wrought all the mischief, while its express recognition by Parliament, after the Restoration, had been the one gain accruing from the "bloody dispute." Hobbes administers his censure pretty evenly to king's friends and foes alike. None, he held, were more to blame for the catastrophe than the half-hearted royalists who "thought the government of England was not an

[1] E., vi. 161-418. The authority is that of W. Crooke, Hobbes's publisher; but the examination by Dr F. Tönnies of a MS. in the library of St John's College, Oxford, bearing the title 'Behemoth: or the Long Parliament,' which may be the original of the work, has disclosed many errors and defects in the text even of the 1682 edition. This MS. has a short dedication to Arlington (not given in the printed editions), with the words: "I petition not to have it published." For the different account (followed above) see E., iv. 411.

absolute but a mixed monarchy," and foremost the constitutional lawyers with their precedents and their limitations on the royal prerogative. It was, accordingly, against the chief of these, Sir Edward Coke (d. 1634), that he was moved to enter the field in the (unfinished) 'Dialogue between a Philosopher and a Student of the Common Laws of England,' which (as including still another statement of his view of the heresy laws) may be referred to the years just following on 1666.[1] Finally, in the 'Historia Ecclesiastica' he sought once more to expose the arts by which Churchmen, with tools borrowed from ancient philosophy, had sapped the foundations of civil power. Aubrey mentions that he read Cluverius's 'Historia Universalis,' for the purpose; and the piece, which runs to more than two thousand elegiac verses, charged with many a quaint conceit, is referred by himself to about his eightieth year.[2]

These works, then, were kept back, and for some time Hobbes might not speak a word for himself, however provoked. At Cambridge, in 1669, the academic authorities seized the opportunity of discrediting him given by a false-hearted disciple, one Daniel Scargil,

[1] E., vi. 1-160. Abruptly broken off, and, according to Hobbes himself ('Life,' 614 n.), unfinished; though the publisher (who could not get his consent to print as late as 1679) announced it, after his death, as having been "finished many years" (E., vi. 422). Aubrey ('Life,' 613) takes credit for having turned his mind to the subject by presenting him with Bacon's 'Elements of the Common Laws of England' in 1664, and it was apparently from this time that he began to turn over the statute-book (E., vi. 1), though he had used Coke's 'Commentary' before (E., iii. 256).

[2] L., v. 341-408. First published in 1688, with an anonymous preface by Thomas Rymer. A loose metrical translation by some one, entitled 'A True Ecclesiastical History from Moses to the Time of Martin Luther,' appeared in 1722.

fellow of Corpus Christi College, who had impudently maintained in the schools some theses torn out of their reasoned context in 'Leviathan.' Known for a disreputable character, this Scargil, before being cast out of the University, was brought to act an edifying part in a public recantation, declaring that he had gloried in being a Hobbist and atheist, and that it was in accordance with Hobbes's principles he had lived viciously.[1] Hobbes could only protest in private to his friends against the injurious imputation. Five years later, however, when at Oxford the Dean of Christ Church, Dr John Fell (of epigrammatic memory), took advantage of his position, in bringing out a Latin translation of Anthony Wood's 'History and Antiquities,' to strike out the tribute to Hobbes's learning and personal character contained in the notice of the philosopher and to insert various uncomplimentary clauses instead, Hobbes did obtain permission from the king to make public protest in a dignified letter, which he had previously addressed to the friendly Wood, and which, on being shown to Fell, had from him evoked only a fresh expression of contempt. The matter did not rest there; for, as soon as the letter was published (under the express condition imposed by the king, that it should contain no reflection upon the University), Fell took his revenge by appending to the book an additional note, in which he did not scruple to call Hobbes "irritabile illud et vanissimum Malmesburiense animal," and, pretending that the original notice had been written—not by Wood but—by Aubrey or by Hobbes himself, heaped upon his head the coarsest abuse. To this Hobbes did not deign to reply. "My

[1] The recantation is given at length in the 'Somers Tracts,' vii. 370-2.

fame, such as it is," he had truly said in the letter, "has long ago flown on wings abroad, not to be recalled" —by any Dr Fell. In like strain, to Bramhall's earlier description of his works as "a heap of misshapen errors and absurd paradoxes vented with the confidence of a juggler and the brags of a mountebank," he could reply in 1668: "What my works are he was no fit judge. But now he has provoked me, I will say this much of them, that neither he, if he had lived, nor I, if I would, could extinguish the light which is set up in the world by the greatest part of them."[1] The boast was not unfounded. No Englishman of that day stood in the same repute abroad; and foreigners, noble or learned, when they came to England, were ever forward to pay their respects to the old man whose freshness and vigour of intellect no progress of the years seemed able to quench. Strangers who came to him with honest intent he received with cheerful courtesy, and he had an unfeigned pleasure in pouring out wealth from his mental store; but he would be impatient enough with those who came to carp or to play with his hasty temper.

He amused himself at the age of eighty-four by throwing off his autobiography in Latin verse,[2] with its playful humour, occasional pathos, and sublime self-complacency. At the close he spoke of his course as nearly run; but the next year (1673) did not pass before his energy had carried him into a new line or back into an old one. He then issued a rhymed translation, in quatrains, of Books ix.-xii. of the 'Odyssey,' and, encouraged by the favourable reception of this 'Voyage of Ulysses,' finished within the next year or two the complete trans-

[1] E., iv. 382. [2] L., i. pp. lxxxi-xcix; see above, p. 2, n.

lation of both 'Odyssey' and 'Iliad.' Prefaced by a dissertation "Concerning the Virtues of an heroic Poem," showing his unabated interest in questions of literary style, the version is less open to the imputation of bald ruggedness than—as Pope, who declares the poetry "too mean for criticism," otherwise objects—to the charge that particulars and circumstances are constantly lopped off, to the sacrifice often of the most beautiful. It was the pastime of an old man of eighty-six, and, when all is said, no slight evidence of the power and vigour of expression that still remained to him.[1]

But the end was at last drawing on. In 1675, when the translation was done, he left London, where he had spent most of his time since the Restoration, first "at Little Salisbury House, then Queen Street, lastly Newport House," and returned no more. Thenceforth his days were passed between Hardwick and Chatsworth, the two Derbyshire seats of the Devonshire family, distant from one another some fifteen miles or more. So far as his strength allowed, he clung still to the regular habits of his life; and it was at the age of ninety, only the year before his death, that he produced, as we have seen, the 'Decameron Physiologicum.'[2] Kennet was told afterwards that

[1] E., x. "Why did I write it? Because I had nothing else to do. Why publish it? Because I thought it might take off my adversaries from showing their folly upon my more serious writings, and set them upon my verses to show their wisdom" (p. x.)

[2] The 'Vit. Auct.' (L., i. p. lxvi) refers to 1676 a 'Letter to William Duke of Newcastle on the Controversy about Liberty and Necessity, held with Benj. Laney, Bishop of Ely.' In that year there did appear a (confused) little tract written by Laney against Hobbes's concluding statement of his own "Opinion" in the 'Liberty and Necessity' of 1654 (1646), but I can find no trace of any further writing by Hobbes on the subject.

"the winter before he died he made a warm greatcoat, which he said must last him three years, and then he would have such another." It is certain that, as late as August 1679, he was "writing somewhat" for his publisher "to print in English."[1] Whatever they were, his hopes and plans were near their term. About the middle of October he had an attack of strangury, from which at his age there could be no recovery;[2] but he would not be left behind at Chatsworth when the family made the move to Hardwick before the end of November. Though he bore the journey well enough at the time, he was smitten by paralysis of the right side, with loss of speech, a few days later. He lingered in a somnolent state till the 4th of December; then his life quietly went out. A black marble slab, bearing a simple Latin inscription,[3] covers his remains in the chancel of the small parish church of Hault Hucknall, lying across the park from Hardwick Hall.

Several excellent portraits have been preserved of Hobbes, the most accessible being that in the National Portrait Gallery and the two in the rooms of the Royal Society at Burlington House. The faithful Aubrey has

[1] E., iv. 412.

[2] Wood and Kennet both have it that, on hearing the trouble was past cure, he exclaimed, "I shall be glad then to find a hole to creep out of the world at."

[3] 'Vit. Auct.' (L., i. p. lxxx): "Vir probus et fama eruditionis domi forisque bene cognitus." Kennet, in 'Mem.' added to the life of Hobbes in Wood's 'Ath. Ox.' (Bliss, iii. 1218), says: "He used to be thinking of his epitaph while he was living, and would suffer some friends to dictate inscriptions for him, among which he was best pleased with this humour for a gravestone—*This is the true Philosopher's Stone.*"

given, besides, a circumstantial account of his looks and ways, more than rambling but too graphic not to be quoted at some length—in preference to any other attempt at delineation. Having noted (as above, p. 12) that "in his youth he was unhealthy and of an ill complexion (yellowish)," Aubrey goes on:—

"From forty he grew healthier, and then he had a fresh, ruddy complexion. . . . In his old age he was very bald, yet within doors he used to study and sit bareheaded, and said he never took cold in his head, but that the greatest trouble was to keep off the flies from pitching on his baldness. His head was of a mallet form. . . . His face was not very great, ample forehead, yellowish-reddish whiskers, which naturally turned up; below he was shaved close, except a little tip under his lip; not but that nature would have afforded him a venerable beard, but, being mostly of a cheerful and pleasant humour, he affected not at all austerity and gravity and to look severe. . . .

"He had a good eye, and that of a hazel colour, which was full of life and spirit even to his last; when he was in discourse there shone (as it were) a bright live coal within it. He had two kinds of looks: when he laughed, was witty, and in a merry humour, one could scarce see his eyes; by-and-by, when he was serious and earnest, he opened his eyes round his eyelids: he had middling eyes, not very big nor very little.

"He was six feet high and something better, and went indifferently erect, or rather, considering his great age, very erect. His sight and wit continued to his last. He had a curious sharp sight as he had a sharp wit; which was also so sure and steady that I have heard him oftentimes say that, in multiplying and dividing, he never mistook a figure,—and so in other things. . . .

"He seldom used any physic. He was wont to say that he had rather have the advice or take physic from an experienced old woman that had been at many sick people's

bedsides, than from the most learned but unexperienced physician.

"It is not consistent with an harmonious soul to be a woman-hater; neither had he an abhorrence to good wine, but he was even in his youth (generally) temperate, both as to wine and women (*et tamen hæc omnia mediocriter. Homo sum; nihil humani a me alienum puto*).[1] I have heard him say that he has been drunk in his life a hundred times, which, considering his great age, did not amount to above once a-year. When he did drink, he would drink to excess, to have the benefit of vomiting, which he did easy, by which benefit neither his wit was disturbed nor his stomach oppressed; but he never was, nor could endure to be, habitually a good fellow—*i.e.*, to drink every day wine with company, which, though not to drunkenness, spoils the brain.

"For his last thirty years or more his diet, &c., was very moderate and regular; after sixty, he drank no wine; his stomach grew weak, and he did eat mostly fish, especially whitings, for he said he digested fish better than flesh. He rose about seven, had his breakfast of bread and butter, and took his walk, meditating till ten; then he did put down the minutes of his thoughts. His dinner was provided for him exactly by eleven, for he would not stay till his lord's hour—*sc.*, about two. After dinner he took a pipe of tobacco, and then threw himself immediately on his bed, with his band off, and slept about half an hour. In the afternoon he penned his morning thoughts.[2] . . .

"Besides his daily walking, he did twice or thrice a-year

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[1] Kennet (quoted in 'Ath. Ox.,' iii. 1218) says: "He had one natural daughter, whom he called his *delictum juventutis*, and provided for her."

[2] Kennet, picking up the stories current some thirty years later, gives an order of the day considerably different. There is a fine mythical development in the account of the afternoon ('Ath. Ox.,' *l. c.*): "Soon after dinner he had his candle and twelve pipes of tobacco laying by it; then, shutting his door and darkening some part of his windows, he fell to smoking and thinking and writing for several hours."

play at tennis (at about seventy-five he did it), then went to bed and was well rubbed. In the country, for want of a tennis-court, he would walk uphill and downhill in the park till he was in a great sweat, and then give the servant some money to rub him. . . .

"He had always books of prick-song lying on his table—*e.g.*, of H. Lawes, &c., songs—which at night, when he was abed and the doors made fast and was sure nobody heard him, he sang aloud,—not that he had a good voice but for his health's sake; he did believe it did his lungs good and conduced much to prolong his life.

"He had the shaking palsy in his hands, which began in France before the year 1650 and has grown upon him by degrees ever since; so that he has not been able to write legibly since 1665 or 1666, as I find by some of his letters to me that he honoured me withal.

"His love to his kindred hath already been spoken of. He was very charitable (*è suo modulo*) to those that were true objects of his bounty. One time, I remember, going in the Strand, a poor and infirm old man begged his alms; he, beholding him with eyes of pity and compassion, put his hand in his pocket and gave him 6d. Said a divine (*sc.*, Dr Jasper Mayne) that stood by, 'Would you have done this if it had not been Christ's command?' 'Yea,' said he. 'Why?' quoth the other. 'Because,' said he, 'I was in pain to consider the miserable condition of the old man; and now my alms, giving him some relief, doth also ease me.'"[1]

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[1] 'Life,' 619-24. For a less favourable picture, from the unfriendly hand of Hooke, when he met Hobbes on one occasion in 1663, see the letter in Boyle's 'Works,' vi. 486 (ed. 1772). Hooke was at the time curator of experiments to the newly incorporated Royal Society. Prof. Masson, in 'Life of Milton,' vi. 289, gives the passage at length, and also sums it up in a vigorous—somewhat too vigorous—sentence.

Sorbière (who had translated the 'De Cive' and the 'De Corpore Politico' into French) visited England shortly after the Restoration, and gives some interesting particulars about Hobbes in his 'Voyage en Angleterre' (1664), 65, 96, 98.

CHAPTER IX.

ANTI-HOBBES.

When death at last overtook Hobbes,[1] the clamour of opposition that had attended all his declining years was far from spent. If not more vehement, his foes had been many more in number and kind than has yet appeared, and they were now to continue at work long after he was there to front them with agressive reprisals or the disdainful unconcern that in general he displayed. Few men have so deeply stirred the minds of their fellows. His more positive influence will be briefly considered in the final chapter; a prior task is some attempt to bring into view the various strains of antagonism which his ideas, for at least three generations after their first utterance, did not cease to evoke. Hardly

[1] His protracted age had struck the popular imagination, and his death, when it came, was sung in a broadside (Luttrell, i. yr. 1679), consisting of an 'Elegy,' not uncomplimentary (which begins—"Is he, then, dead at last?"), followed by a scurrilous 'Epitaph,' thus ending:

> "In fine, after a thousand Shams and Fobbs,
> Ninety years' eating and immortal Jobs,
> Here matter lies,—and there's an end of Hobbes!"

Aliud—

> "Here lies Tom Hobbes, the Bugbear of the Nation,
> Whose death hath frightened Atheism out of fashion!"

has there been seen again such a ferment of popular feeling and learned opinion round the thought of one man, till, in these days, Darwinism touched the same human interests in a manner not wholly dissimilar.

"The philosopher of Malmesbury," wrote Warburton in 1741,[1] "was the terror of the last age, as Tindal and Collins have been of this. The press sweat with controversy; and every young Churchman militant would needs try his arms in thundering upon Hobbes's steel-cap." Some notion of the flutter in ecclesiastical and other circles may be gathered from the (fairly complete) catalogue of the polemical literature given in the 'Vitæ Auctarium' down to the time of the philosopher's death; the heap of sermons and pamphlets and treatises being added to with every year that followed. Nor, later on, did the deistic movement—to say nothing of Hobbes's own part in starting it—so engross the attention of the champions of religious orthodoxy throughout the first decades of the eighteenth century, that they could overlook his deeper attempt on the foundations of morality, —an attempt so serious that deists themselves, like Shaftesbury, were among the foremost to rally to the defence. Even Locke's new theory of knowledge, which wrought such a transformation of thought all over Europe, and began in England the first continuous movement of philosophical and psychological inquiry, had at first the effect of bringing only into stronger relief the sharp utterances in which the elder thinker seemed to its opponents to have anticipated some of its most exceptionable features. Not, indeed, till about the

[1] Preface to books iv.-vi. of the 'Divine Legation of Moses' (Hurd's edition, 1811, iv. 31).

middle of the century do we find such calmer references to Hobbes as those in which Hume lets it be seen that the crisis is past, and that henceforth the venue of discussion is changed.

As it had been a practical purpose that first made Hobbes a thinker, so it was mainly the practical issues of his thought, and these more especially as drawn out for all the world in the imposing rhetoric of 'Leviathan,' that from the first arrayed the host of enemies against him. Even Wallis's detailed exposure of his mathematical pretensions in the 'De Corpore' had for its object the discrediting of his authority in matters of more immediate human concern. Otherwise, after Seth Ward's joint-polemic, there was no criticism to speak of directed expressly against the fundamental treatise; Cudworth and More alone, among his major assailants, having the speculative interest so strong as to go back freely to its demonstrations from the compendious reference to philosophical principles in 'Leviathan' (or 'Human Nature'). The limited view of others is the less surprising as the superstructure had been mostly reared before the foundation was laid; but neither was the practical doctrine, at all points, seriously contested. By the side of the ethical criticism, conducted on grounds of principle that render it ever memorable, the political may be dismissed as of small account. There is one name of note—if Filmer's, saved by Locke from oblivion, may hardly be so called—attached to a special handling of the political theory, which the moralists in general stopped short of touching (when they did not, like Cudworth, find here at least something to commend); but, strenuous as Clarendon's invective is, more especially against Hobbes's

naked assertions of the practical irresponsibility of the sovereign power (wherever resting) in any state, his own political action had too well exemplified the theory to leave it open to him to take effective ground against it, were any such to be found. His 'Brief View and Survey of the dangerous and pernicious Errors to Church and State in Mr Hobbes's book entitled Leviathan' passes accordingly into the same kind of indignant protest, without discrimination, as was vented by the crowd of objectors, mostly clerics, against the paradoxes with which Hobbes loved to shock the common-sense of his readers, seeking rather to cow than to persuade them into acceptance of his clear-cut scheme of thought and practice.

Nothing, it may at once be allowed, could be more natural than the revolt of common-sense against the general spirit and tendency of the scheme. The most cherished convictions of humanity had been ruthlessly trampled under foot by Hobbes in his determination to reduce to absolute simplicity the account of man's place in the universe, and so to get rid of everything that might be represented as factitious cause of social disorder. No sooner had his late-born interest in the new mechanical philosophy suggested to him the thought of seeking for a physical expression of the mental processes and human relations of which he had long before been a careful and anxious observer, than he had fallen into the way of regarding all that he could not so express as mere figment or shadow. Seeing then his countrymen parted into hostile camps by what he could only regard as vain distinctions of the religious imagination, and ready, as they clutched at each other's throats, to

cast away the hard-won fruits of past social effort, he had desired to make a clean sweep of all such unrealities. Hence his uncompromising rejection—in one or other form—of that notion of incorporeal spirit which had worked its way to the first place in the consciousness of Christendom. Hence, also, his refusal to allow of any such idea of inward relation between creature and Creator as had given the Catholic Church its power over the faithful, so long as the relation was held to be by way of intermediary, and now, since Protestantism had asserted a direct personal relation, was rending the body politic into a multitude of warring sects. While maintaining a Divine government of the world and professing to accept the Scriptural revelation, he had given an expression to his thought of Deity and to his view of Christian doctrine which could not but scandalise the pious soul of whatever confession. And, for justification of his one practical principle of political absolutism, he had drawn a picture of the selfish and anarchic tendencies in man that either was too plainly exaggerated by design or only proved himself to be, by temperament, incapable of entering into the nobler sides of human nature. There was thus much genuine feeling and sometimes no want of intellectual point in the protests that came forth in shoals from the champions of the traditional order in religion and morals; and if they failed to discern the serious purpose—practical as well as scientific, in a word, philosophic—that had really prompted his long-protracted effort of thought, his aggressive tone and his habit (whether reckless or calculated) of extravagant statement went far to explain the result.

With so much justification, and, here and there, argu-

mentative force, it cannot, however, on the whole be said that the Anti-Hobbian writings of the more popular sort are not sufficiently commemorated in the mere catalogue of the 'Vitæ Auctarium.' Besides Bramhall's 'Catching of Leviathan,' which has an interest as the one piece that Hobbes singled out for answer—having, as it seemed, a peculiar zest in tossing his old Episcopal foe—and Clarendon's 'Brief Survey,' both already noted, express mention need only be made of—(1) 'The Creed of Mr Hobbes, examined in a feigned Conference between him and a Student of Divinity,' the work in 1670 of Thomas Tenison, afterwards Tillotson's successor in the see of Canterbury, but then holding a clerical charge in Cambridge; (2) 'Mr Hobbes's State of Nature considered in a Dialogue between Philautus and Timothy,' published in 1672 by Dr John Eachard, later on Master of Catharine Hall, Cambridge, and followed next year by 'Some Opinions of Mr Hobbes considered in a Second Dialogue.' These, like Clarendon's 'Survey' (penned in 1670), date from about the time when the licence of the Restoration period had settled down into a fixed social habit, and might be plausibly associated with the fashionable profession of Hobbian principles. A livelier style of attack than had yet been employed against the arch-enemy (except by Wallis, with such effect, in the mathematical conflict) seemed called for. Tenison, bracing himself for the occasion, takes a number of articles strung together by some one under the title of 'The Hobbist's Creed,' and makes them the subject of conversation between Hobbes, who expounds them at length for the most part in words collected from his different works, and the Student (Tenison him-

self), who rebuts them to the best of his power.[1] His art consists in finding, as was easy, a number of more or less contradictory statements in such a variety of occasional works, and in mocking at the unhesitating confidence with which they were all alike uttered. The piece, accordingly, is not without polemical merit. Possibly it may have suggested to Eachard (who had already won some reputation as a humorist by his 'Grounds and Occasions of the Contempt of the Clergy and Religion') the vein in which he, too, might best cope with the dictatorial thinker. Though described afterwards by Swift as "a great instance" of men he had known "happy enough at ridicule who upon grave

[1] The articles may be quoted as a specimen of the kind of interpretation that was, more or less plausibly, put upon Hobbes's unguarded *dicta*:—

"I believe that God is almighty matter; that in Him there are three Persons, He having been thrice represented on earth; that it is to be decided by the civil power whether He created all things else; that angels are not incorporeal substances (those words implying a contradiction), but preternatural impressions on the brain of man; that the soul of man is the temperament of his body; that the liberty of will, in that soul, is physically necessary; that the prime law of nature in the soul of man is that of self-love; that the law of the civil sovereign is the obliging rule of good and evil, just and unjust; that the books of the Old and New Testament are made canon and law by the civil powers; that whatsoever is written in these books may lawfully be denied even upon oath (after the laudable doctrine and practice of the Gnosticks) in times of persecution, when men shall be urged by the menaces of authority; that hell is a tolerable condition of life for a few years upon earth, to begin at the general resurrection; and that heaven is a blessed estate of good men, like that of Adam before his fall, beginning at the general resurrection, to be from thenceforth eternal upon earth in the Holy Land" (p. 8).

Compare, in the 'Somers' Tracts,' vii. 368, "The Last Sayings or Dying Legacy of Mr Thomas Hobbes of Malmesbury," issued as a broadside (by C. Blount), with hostile intent, on his death.

subjects were perfectly stupid," Eachard was able to work the vein so effectively that his 'Dialogues' went through many editions, and probably did more than any laboured refutations to weaken the effect of Hobbes's imposing manner. They show, by incidental allusions, the extent to which the philosopher's unqualified sayings had been wrested by the frivolous and vicious to an application that was as far as possible from his serious thought; and, in fastening upon his rhetorical device of using phrases of direst import, like "state of war," to express what was at bottom a harmless enough meaning, Eachard displays true controversial tact.

But, leaving all such combatants of the hour, we may now turn to the more powerful thinkers who were stirred by Hobbes to an opposition that did not pass off in mere heat. As, with a certain reservation for Grotius before him, it is allowed that he led the way in modern times as an ethical philosopher, seeking a rule of conduct in the demonstrable conditions of human life and experience, so (as noted already by Adam Smith) all further advance in ethical inquiry, at least in England, took place with reference to his sharply defined positions. Cumberland, Cudworth and Clarke, who, next to himself, are the first important figures in English moral philosophy, had each in view the establishment of principles directly antagonistic to principles of his; and, while in the case of Clarke the opposition was not declared till almost a generation after his death, Shaftesbury, Butler and the others who followed up the inquiry with a novel pertinacity of purpose, continued for at least one generation more to find at the same spring the motive of their

search—giving to English thought an ethical direction and to English ethical thought a psychological cast which it has never since lost. The two salient features of Hobbes's morality, impressed on it by the reaction of a timorous spirit and calculating intellect against the anarchy and enthusiasm of his time, were its arbitrariness and its selfishness. To show that the rule of right was no wilful prescription of an irresistible power, whether human or divine, and that it had its source and warrant in quite another disposition of man towards man than Hobbes had alone seen evidence of in human nature, was the task taken in hand by his more serious opponents.

The priority in purpose, if not also in performance, belongs to the group of divines known as the Cambridge Platonists, who carried on in the third quarter of the century a tradition of enlightenment within the English Church that dated back to the time of Hooker. Becoming aware of the new philosophical position taken up by Descartes, and finding in the spiritualism joined with his naturalism much that was not irreconcilable with the Platonic (or Neo-Platonic) principles which they had adopted as a rational basis for their religious faith, they were the more turned against Hobbes's thorough-going materialism, which ignored, when it did not deny, the ideal side of man and nature. Cudworth, the ablest thinker though not the most genial member of the band, had early descried the portent appearing on the horizon of English thought. As far back (apparently) as 1644, when Hobbes had begun to circulate his ideas only in a private or at most a semi-public manner, he took the occasion of a graduation exercise to assert

the eternal and absolute distinction of good and evil, and the existence of immaterial and naturally immortal substances. The theses seem obviously pointed at Hobbes, and to maintain them by every resource of thought and learning, in a series of writings, became from that time forth the occupation of Cudworth's life. His chief work—'The True Intellectual System of the Universe'—was conceived on a scale so vast that only one volume saw the light, in 1678, before Hobbes's death, but this extended to a length of 900 folio pages; and before his own death, which followed in 1688, or in the earlier years (for the 'Intellectual System,' so far as afterwards published, had been written by 1671), he had filled some thousand pages more of manuscript, concerned always more or less directly with Hobbes, besides the 'Treatise concerning Eternal and Immutable Morality,' which found an editor in 1731, and the short 'Treatise of Freewill' (directed against Hobbes's 'Liberty and Necessity'), which did not find one till 1838. No other of Hobbes's opponents took so much pains to connect his practical doctrine in all its developments with the mechanical principles in which, if it had not its first origin, it came to be formally grounded; and the labour of overturning the system, root and branch, was not achieved without that burrowing aside into every recess of ancient lore which makes Cudworth's refutation of the "reason and philosophy" and demonstration of the "impossibility" of "Atheism" the most erudite (as erudition at its time was understood) of philosophical works. But second only to Cudworth's in thoroughness was Henry More's criticism of Hobbes's general principles, though limited

by him to the particular question of the existence and nature of spirit; and as More, in his treatise 'On the Immortality of the Soul,' first published in 1659, took the metaphysical field earlier, so again he anticipated the slow-moving Cudworth with his 'Enchiridion Ethicum,' in 1666. This latter work, however, though meant to stem Hobbes's influence, makes but one direct reference to him, and is of interest here only as showing how the hardy path-breaker had drawn his contemporaries into the way of thinking-out a rational theory of human conduct. It is Cudworth that, in ethical as in metaphysical regard, presents the full front of antagonism to Hobbes,—with a spirit, too, of bitterness not to be traced in the expressions, sometimes even half-admiring, used of the adversary by the gentler More.[1]

Cudworth's position as against Hobbes, which even in the treatise on 'Morality' never gets beyond general statement, is that good and evil are there fixed for ever in the nature of things, as directly apprehensible by a faculty of intellect that is purely spiritual and in no way bound down by the material conditions of the mind's sense-experience. Hampered as he was by an antiquated metaphysic and unable to work out his idea into anything that can be called an ethical system, he

[1] In connection with the Cambridge school—though he hailed from Oxford—mention should not be omitted of Joseph Glanvill, who first in his 'Vanity of Dogmatising' (1661) and then in the modified second edition of this work, entitled 'Scepsis Scientifica' (1665), had shrewd objections to urge against several of Hobbes's characteristic positions. The whole movement of the school in its antagonism to Hobbes has been effectively treated by Principal Tulloch in vol. ii. —"The Cambridge Platonists"—of his 'Rational Theology and Christian Philosophy in England in the Seventeenth Century' (1874).

yet brought thus into clear view that aspect of universality and permanence in moral distinctions which even Hobbes himself had not been able always to leave in shadow. The same thing was done over again, a generation later, by Samuel Clarke, under other conditions. Locke had meanwhile taken new philosophical ground, from which, while giving no account of human impulses much differing from Hobbes's, he conceived of morals as a system of intuitively clear notions like those of mathematics, admitting of logical development into propositions that are valid just because they do not profess to have more than a nominal import. If Clarke had an analogy between mathematical and moral truth thus suggested to him, he was also not less disposed, by his Newtonian sympathies, to give a mathematical interpretation of any facts with which he had to deal. Accordingly, after having in his first Boyle Lectures, of 1704, on 'The Being and Attributes of God,' argued to some extent against Hobbes's doctrine of cosmical necessity, he in his second course, next year, on 'The Unchangeable Obligations of Natural Religion, &c.,' sought to prove, against Hobbes more expressly (and taking full advantage of Hobbes's own casual allowances), that men as agents in the universe stand in fixed relations that involve lines of action as directly seen to be fit and due as mathematical propositions, expressing other fixed relations among things, are seen to be true. Arrived thus far, Clarke, hardly more than Cudworth, conceived that anything else had to be done for ethical philosophy in the way of providing natural motives for right-doing. Yet in the prominence he gives to benevolence as a principle of human action, as also by direct citation, we

have evidence of the effect that had begun to be wrought by another of Hobbes's critics, properly the first, in point of time, among those of them who have left their mark on the development of ethical theory.

Cumberland (Bishop of Peterborough from 1691), in his 'De Legibus Naturæ Disquisitio Philosophica' published in 1672, stands much nearer to Hobbes in method of inquiry than any other of his opponents, and it is probably for this reason (rather than for any other, as suggested by the friend who, in a preface, excuses him for not treating Hobbes roughly enough) that he conducts his opposition, however pronounced, in a spirit of unwonted consideration. He, more than Cudworth or Clarke, is the true successor of Hobbes upon the modern path of ethical inquiry, by regard to the constitution of human nature and the facts of human life. But, unlike Hobbes, he finds in man's physical and mental constitution clear evidence of sociability as the most fundamental and far-reaching of human impulses; and this leads him to propound "the common good of all"—not self-satisfaction or self-preservation—as the proper end of conduct (under theological sanctions) for a rational creature. For the rest, he moves so naturally within the circle of the conceptions borrowed by Hobbes from philosophical tradition, that he is able to contest, in minutest detail, the free personal rendering which Hobbes had given of them. The result is Hobbism made altruistic—no small difference truly. There is also the difference that Cumberland, by his discursiveness and confused handling, falls as much below the level of endurable philosophical style as Hobbes rises above it.

If Cumberland's particular note of protest was echoed

even by Clarke, whose philosophical method was so different, it was taken up and developed with abundant effect by Shaftesbury. Locke's private pupil, who learned from him the habit of psychological observation, and used it to discredit some of his master's most confident assertions regarding human nature and experience, found equal or greater satisfaction in dealing his rapier-thrusts at the more dogmatic egoist of the previous generation. With Shaftesbury ethical thought in England passes definitively into the phase of seeking the ground of right conduct in a relation of harmony among the mental impulses natural to man; and these being found by him to include "social affections" to such a degree that their play gives the very meaning of "virtue" or "goodness," his contention with Hobbes becomes narrowed to the most definite issue. It is not waged in any sustained fashion, and when it does become express in one or other of the essays brought finally together in the 'Characteristicks' (1711-13), it is urged in a tone of airy assurance which it needs all Hobbes's manifest exaggeration of the anti-social element in human nature to justify or excuse.

Nearly thirty years after Shaftesbury had, first in his 'Inquiry concerning Virtue and Merit' (1697), committed ethical thought to the psychological method, Butler was working it with an earnestness of his own, and succeeded in completing—or appearing to complete—the demonstration of Hobbes's psychological shortcoming, when not error.[1] Butler, with the pastoral aim of

[1] Hutcheson also, who was busy at the same time upon the same track, is to be mentioned for his 'Thoughts on Laughter,' contributed, with 'Observations on the Fable of the Bees,' in the form of letters

his 'Sermons (1726), had other free-thinkers besides Hobbes in view, and is distinguished by his readiness to press any and every kind of philosophical argument into the service of religion without much care for theoretic consistency; but his peculiar strength lay certainly in the line of psychological analysis, and it is expressly as well as tacitly conveyed that Hobbes's estimate of the motive powers in man remains with him, even after so long a time, the great stumbling-block to be removed from the way of the faithful. This he essayed chiefly in the continuous argument of the three discourses (i.-iii.) 'Upon Human Nature,' and in the two others (iv. v.) 'Upon Compassion.' The quality of his effort is attested by the praises that have ever since been lavished upon his main thesis by moralists of different schools; though, when Hume, in particular, speaks of its having "been proved beyond all controversy that even the passions commonly esteemed selfish carry the mind beyond self directly to the object," he proceeds to give the doctrine a turn that was certainly not in Butler's thought, and throws considerable doubt upon his own seriousness.[1] But, in any case, it has hardly remained in serious question since that there is a principle of properly disinterested action in the human system, and that Hobbes, if he had good reason for dwelling upon the

to a Dublin periodical within the years 1725-27 (see Prof. Fowler's 'Shaftesbury and Hutcheson,' 173). Directed specially against Hobbes's well-known theory of Laughter as springing from sudden sense of personal superiority, the 'Thoughts' are meant to have also general application against his whole doctrine of human nature.

[1] The note to sec. i. of the 'Inquiry concerning Human Understanding' in which the remark occurs was, besides, afterwards withdrawn.

might of the selfish tendencies in man and showed true psychological insight in tracking them through the transformations they assume, gave an essentially one-sided and distorted view of human activity. What his opponents, in their contention, never did him the justice to remember, was that, if he did exaggerate or bring exclusively into view the egoistic impulses in man, it was yet in order to bar out their anarchic consequences by the most effective agency of which he could think. And if this was nothing but the strong hand of the civil power, let it not be forgotten amid what a welter of social strife a peace-loving student in the middle of the seventeenth century was doomed to pass his days.

CHAPTER X.

INFLUENCE.

If a man's influence is to be measured not least by the opposition that he arouses, we have already had proof that few thinkers have left a deeper trace upon their time than Hobbes. It remains to note, with the briefness imposed by present limits, in what directer way he was able to affect those who came after. This is the point of chief importance. Were it only a question of the recognition he received in his day, it would be easy—and it would suffice—to set over against the execrations heaped upon his head panegyric like that of Cowley's ecstatic verses, or such ungrudging admiration as a rival political theorist like Harrington was ready to express.[1]

[1] To Cowley (d. 1667) Hobbes is the "great Columbus of the golden lands of new philosophies." His ode, 'To Mr Hobbes,' which has many other fine single lines, is given at the beginning of L. i.

Harrington, who in 'Oceana' (1656) had many objections to urge against the doctrine of 'Leviathan,' in a later discourse on 'The Prerogatives of Popular Government' (c. vii.), justifies his opposition, but adds: "Nevertheless in most other things I firmly believe that Mr Hobbes is, and will in future ages be accounted, the best writer at this day in the world. And for his treatises of 'Human Nature' and of 'Liberty and Necessity,' they are the greatest of new lights, and those which I have followed and shall follow."

So racy as they were of the soil, it is in England that we are to look for the proper effect or development of Hobbes's ideas: but it may first be observed that it was not only at home that he either exerted influence or called forth strenuous hostility. The age had not yet come of separate national philosophies; and Hobbes, who composed his systematic trilogy in Latin, and made shift to appeal from the heated denunciations of his countrymen to the impartial judgment of the learned in all countries by a translation even of 'Leviathan,' became, from the first, an active factor in European as well as in English thought. Some, indeed, of the very earliest and not the least passionate protests against his practical philosophy came from over sea; while his theoretic basis obtained from foreign critics more detailed consideration than, in general, it received at the hands of his compatriots. Theologians like G. Cocquius, J. A. Osiander, Christian Kortholt[1] and other such champions of the faith, are not of more account than the homebred Sharrocks and Parkers already passed over; but it is of interest to note that as early as 1660, and again in 1672, a publicist of the rank of Puffendorf, in his constructive works, did not oppose Hobbes on certain fundamental points of legal theory without acknowledging many and

[1] Kortholt (d. 1694), professor at Kiel, at least followed a line of his own in 'De Tribus Impostoribus Magnis' (1680). Whatever, said he, might be the truth about the infamous book under that title, reported to have been smuggled into the world by some agent of the infernal dragon in the previous century [after troubling the mediæval soul long previously], three great impostors there but too surely were, at that present time, working their evil purpose upon the Christian world—to wit, Herbert of Cherbury, Hobbes, Spinoza. He proceeded accordingly, with much fury, to rend all three to pieces: Herbert in ninety, Hobbes in fifty, and Spinoza in seventy pages.

varied obligations to him. And a greater than Puffendorf, Spinoza, showed in his 'Tractatus Theologico-Politicus,' published in 1670, as afterwards in the posthumous 'Tractatus Politicus' (1677), how thoroughly a mind of the highest originality could steep itself in the thought of another; there being little in the way of general political principle that Spinoza was not content to accept and pass on, tacitly, as Hobbes had established it, if only he might vindicate more expressly than Hobbes had done the indefeasible right of the subject to individual liberty of thought. Leibniz also, before the death of Hobbes, was able to record in some of his earliest writing the impression made upon his eager intellect by the "more than Nominalist" whom he reckoned among the profoundest spirits of the new philosophic era;[1] and, many years afterwards, in appending to the repeated mention of Hobbes in the 'Théodicée' (1710) a special review of the Bramhall controversy, still found that he reasoned—to whatever extreme lengths — "avec son esprit et sa subtilité ordinaire."

After such recognition by the greatest, it is hardly surprising that Hobbes should have continued to be regarded in Germany; but it has not been generally known to what an extent his theoretic conceptions, as well as his practical doctrine, remained a subject of concern to the multitude of active minds who throughout the eighteenth century were laying the foundations of the later fame of the German professoriate. Though not followed by a succession of professed adherents like those who, on the basis of Locke's 'Essay,' maintained an im-

[1] 'De Stilo Philosophico Nizolii' (1670, ed. Erdm. p. 69).

posing front against the speculative dogmatism of Leibniz and Wolff till Kant appeared, he was made to do service in the cause of experientialist philosophy and of positive investigation in all departments of humanistic science; nor even after the Kantian revolution in philosophy did he cease to attract an amount of attention that might vie with that accorded to Hume himself.[1] In France, after those had passed away with whom he had personal relations in his lifetime, his influence as a philosophical thinker was more slow to become active, though Bayle and others kept the memory of his work alive. Cartesianism had first to fall before the ideas of Newton and of Locke, as introduced by Voltaire; but, as soon as the ground was cleared from the middle of the eighteenth century for the manifestation of the revolutionary spirit in every channel of thought and practice, the vigour of Hobbes's written word began to tell. Diderot's 'Encyclopædia' article, "Hobbisme," which appeared in 1765, though very careless in its facts, set out in striking form

[1] G. Zart, in 'Einfluss der englischen Philosophie seit Bacon auf die deutsche Philosophie des 18. Jahrhunderts' (Berlin, 1881), has been the first to show how extensive and prolonged was Hobbes's influence. It was previously known what a warm (yet not undiscerning) defender Hobbes had in the Halle professor, N. J. Gundling (1671-1729), most voluminous of writers or writer of hugest volumes. Many of Zart's authors were professors, but not all: among those who continued after Kant to acknowledge the English influence, and not least that of Hobbes, E. Platner (1744-1818) may specially be mentioned. Later on, Hobbes has continued to receive his full share of attention from German writers, and has been often made the subject of monographic study, mostly, however, only on his ethico-political side. 'Leviathan' (translated into Dutch as early as 1678) did not receive a German rendering—and then from the Latin—till 1794, from an anonymous hand ('Des Engländers Thomas Hobbes Leviathan, &c.,' Halle, 2 vols.); 'De Cive,' not till 1873, from J. H. v. Kirchmann.

the most characteristic of Hobbes's opinions; and a later appendix to the article (from the hand of "Citoyen" Naigeon, in 1792), giving an analysis of the 'Human Nature,' reports his enthusiastic outburst on first becoming acquainted, in 1772, with this work, which had just been translated by D'Holbach.[1] Before Diderot, Rousseau had come under Hobbes's influence, though he took up a position, first in the discourse 'De l'Inégalité' (1754) and later in the 'Contrat Social' (1762), that had chiefly the appearance of antagonism to him. And if Hobbes could thus, in different ways, affect the insurgent spirits who, by rationalist criticism or sentimental appeal, were preparing the downfall of social order in France, he could also, when the time of reaction came following upon the deluge, be pressed into the support of the revived principle of authority, even when it got an expression as alien as possible from his. De Maistre's brilliant plea for Ultramontanism, in the treatise 'Du Pape' (1817), may be described as an argument conducted throughout on Hobbist lines—only turned to account of the very cause of papal over-lordship in

[1] Diderot's words should be given: "J'en suis sorti de ce 'Traité de la Nature Humaine': quel dommage que le traducteur n'ait pas réuni l'élégance et la clarté du stile à l'évidence et à la force des idées! Que Locke me parait diffus et lâche, La Bruyère et La Rochefoucauld pauvres et petits, en comparaison de ce Tho. Hobbes! C'est un livre à lire et commenter toute sa vié."

D'Holbach reissued his translation of the 'Human Nature' in 1787, joining with it the translations of the 'De Cive' and 'De Corpore Politico' made by Sorbière as far back as 1649 and 1652, under the general title, 'Les Œuvres philosophiques et politiques de Th. Hobbes' (Neufchâtel, 2 vols.) A rendering of the first section, "Computatio sive Logica," of the 'De Corpore' was included by Destutt de Tracy in his 'Élémens d'Idéologie' in 1804, with some not well-directed eulogy of the author in a preliminary discourse.

Christendom with which Hobbes had his main wrestle in the interest of a self-contained national life.

As to Hobbes's influence on English thought, the question of prime importance is to determine what effect he had upon the next philosophical thinker, Locke, who like himself had more than an English reputation, and, through or apart from Locke, upon any of those who have later maintained that tradition of a national way of thinking that had already begun to be established before his own time. Though nothing could seem farther removed, whether in form or matter, from Hobbes's rounded-off and all-comprehensive system of philosophy than Locke's mere 'Essay' to discover the nature and import of the human faculty of knowledge, there is yet (as before suggested) a point of contact between them. Hobbes's effort, at a time when knowledge was broadening and widening in a manner unknown before, to maintain command over the whole in principle, process, and result, was not itself so satisfactory—nor has it since been repeated with such success—as that anything but credit is due to Locke's sagacity for limiting as he did the philosopher's function. Neither, happily, was the worse than waste of Hobbes's energy (despite occasional flashes of insight) in the field of mathematical and physical science imitated in any degree by the sober thinker who was content to become—as in his excess of modesty he chose to phrase it—an "under-labourer" by the side of the scientific "master-builders." But Hobbes had, after all or before all, found in the mental and moral nature of man the field that gave true exercise at once to his scientific habit of mind and to his speculative ambition; and it was upon just such a basis of psychological consideration and

ethical interest that Locke founded his work of philosophical criticism.

It is accordingly not difficult to discover agreements between the two thinkers in spirit or detail; and it has been natural to suppose them due to direct influence of the elder upon the younger. Yet a closer examination leaves little doubt that the impulse to think as he did came no more upon Locke from Hobbes than, as we have before seen, it came upon Hobbes from Bacon. It was Descartes who, having founded a great dogmatic construction of the universe upon a basis of subjective consideration, started Locke upon that other—psychological—"way of ideas" that was to limit philosophy thenceforth to general theory of knowledge and leave free scope for the positive sciences; excluding, therefore, all such dogmatic construction as either Descartes himself or, in another way, Hobbes had attempted. When, then, we find Locke protesting his ignorance of Hobbes's opinions even on points where the agreement between them is almost verbal, we may well suppose him in no material respect impressed by one whose general philosophical method and whose practical aims were alike abhorrent to him.[1] And in so far as Locke, by entering on a path not before trodden either in England or out of it, determined the course of philosophical thought from his time onward, we are not

[1] Locke's chief disclaimers of familiarity with Hobbes occur in his 'Second Reply to the Bishop of Worcester,' i. 566 (fol. ed., 1714), and in 'Second Vindication of the Reasonableness of Christianity,' ii. 669. Warburton, who piqued himself on his readiness to do Hobbes the justice that was generally denied him, was perhaps the first who definitely formulated the charge of plagiary ('Tracts by Warburton, &c.,' 1789, p. 70), often repeated since (by Hazlitt and others).

to look for special influence from Hobbes upon those who plied the psychological method. Berkeley and Hume, to whatever achievements their original power might have led them of themselves, unquestionably thought as they did because of Locke who went before them, and, so far as appears, not at all because of Hobbes who went before Locke. Even in their more pronounced Nominalism, where they stand much nearer to Hobbes than to Locke, there is no sign that they were affected by the earlier thinker. Hence, if at a later time we find the English school, while maintaining the Lockian tradition, affiliating itself also upon Hobbes, the fact must have some special reason of a more accidental character; and this is to be found in James Mill's revival of the Associationism of Hartley. Not that Hartley, any more than his contemporary Hume, in working out a psychological theory of Association with philosophical consequences, had Hobbes in his eye; but he certainly came to his more developed doctrine of Association from the same physical or physiological starting-point as had led Hobbes to his. It is not surprising, then, that James Mill, being attracted to Hobbes on his practical side and finding in him a more express anticipation of the Associationist doctrine than in Locke, should, without renouncing allegiance to Locke whom Hartley had proclaimed his master, have brought Hobbes into a consideration he had not enjoyed before, and that this consideration should have later been maintained among the representative members of the English school.

The result is that, as far as Hobbes has exerted an influence in philosophy proper, it has been of the indirect kind wrought through psychological science.

As psychology has a voice in the determination of ultimate philosophical notions that belongs to no other positive science, Hobbes has done more for philosophy by promoting the positive investigation of mental functions than by the abstract definitions of his own First Philosophy, acutely conceived as these always are. We have already seen how his influence told in a similar sense, but much more directly, upon the philosophical theory of action in ethics; and neither has it been otherwise as regards political theory, with the history of which his name is as intimately connected. If here he spoke a language which is in part not modern, he was certainly not enslaved like Grotius by the fictions they both still employed for the purposes of rational construction. Actual facts of human nature and undeniable human conditions are alone suffered to shape and determine his thought of the possibilities of the human lot. He was, indeed, in politics a thinker of so positive a cast that it may be said he erred chiefly in not taking account of the useful purpose that fiction is fitted to subserve in human practice. Consider only his central idea of the irresponsibility of the sovereign power. So perfectly plain, when it is once stated, that there is room only for marvel at the kind of objections that have been urged against it, the idea was yet put forward in a way that took no account, or no sufficient account, of the instinctive repugnance which men do well to cherish against it. If there is no power on earth that can prevent the State from disposing as it lists of the individual in all his external relations, and if there come times in history (like Hobbes's own) when the truth needs plain statement

over against the fancies and sentiments that resist it, yet have these not less their part to play in the normal conduct of social life. It is not meet that the ruling power in any community should have its irresponsibility first present to mind; but, on the contrary, it is surely well, so far as it can be done without prejudice to the efficiency of State-action, that checks be imposed upon the arbitrary action of a power that has to be directed by uncertain human volition and wielded by erring human hands. Nor does history confirm the timorous thought of Hobbes, that all the woes of anarchy are instantly present as the inevitable alternative to tame endurance of the most arbitrary acts of rulers. When men are driven out of the state of patient quiescence, which has become, if it was not originally, as natural to them as any "state of war of all against all," they are not obliged to abjure every consideration that makes for progress under fear of immediate social collapse.

When the accidental features of Hobbes's ethico-political ideas—due to time and circumstances and personal temperament—are discounted, it is not difficult to understand how it should have been philosophical radicals of the school of Bentham that first gave them effective currency. Bentham himself, for whatever reason, makes hardly any reference to Hobbes. Though, unlike Hume —who, in a calm scientific argument against the notion of a social compact, had made some advance towards the consideration of historical origins which was about to sweep away all such fictions from political theory—he worked by as abstract a method as Hobbes, it was yet a different method, and was directed towards objects of

practical reform so different that it is possible he had only aversion for the great absolutist. But Bentham's followers, beginning with James Mill, were able to pierce through the veil of accident and to see in Hobbes what he actually was—a man who had the same regard that they had to common weal as the true aim of human action and the same faith in intelligence as the one means of realising it. Through James Mill, Grote and Austin, in particular, were fired with admiration for the most clear-headed and logical of political thinkers; and from Grote, as Molesworth has left on record, came the first suggestion of doing homage to his power and increasing its effect by the publication of a complete and accessible edition of his works. Nothing was wanting to the spirit of munificence and devotion that Molesworth brought to the execution of the task he undertook, though something more might have been done, by editorial care, for the text of the stately volumes. It was, however, Molesworth's intention to follow up his edition of the works with a critical survey of Hobbes's whole philosophical performance; and if he had not been diverted, by the exigencies of the active political life that opened for him, from continuing the preparations for it which he is known to have begun, he might have made up for the only drawback upon the merits of his service to Hobbes's fame.[1]

[1] See above, p. 3 n., for Molesworth's edition of the 'Works' and 'Opera.' From the eighteenth century there has only to be mentioned the fine folio edition of 'The Moral and Political Works of T. H. of Malmesbury,' issued in 1750 with Life, by Dr Campbell of the 'Biographia Britannica'; including, in order, 'Human Nature,' 'De Corpore Politico,' 'Leviathan,' 'Answer to Bramhall's Catching of the Leviathan,' 'Narration Concerning Heresy,' 'Of Liberty and Neces-

It should, finally, be said that, with enemies and with friends alike, Hobbes's power has been due not least to the rare excellence of his literary style. Adversaries

sity,' 'Behemoth,' 'Dialogue of the Common Laws,' Introduction to the 'Thucydides,' 'Letter to Davenant' and two others, Preface to the 'Homer,' 'De Mirabilibus Pecci' (with English trans.), 'Considerations on the Reputation, &c., of T. H.' In 1812 the 'Human Nature' and the 'Liberty and Necessity' (with supplementary extracts from the 'Questions' of 1656) were reprinted in a small edition of 250 copies (London), with an interesting memoir (based on Campbell) and dedication to Horne Tooke, by Philip Mallet. 'Leviathan,' reprinted separately in 1680, has again lately been twice reproduced —(1) at Oxford (J. Thornton), 1881, in handsome form, with reduced frontispiece; (2) as one of the cheap volumes of 'Morley's Universal Library,' London, 1885.

Reprints have been for some time announced (by J. Thornton, Oxford) of (1) 'The Elements of Law, Natural and Politique' (*i.e.* 'Human Nature' and 'De Corpore Politico'), and (2) 'Behemoth,' edited upon careful collation of MSS. by Dr F. Tönnies (referred to above, pp. 35 n., 198 n.); the former to have added to it the (MS.) tract mentioned at p. 35 n., with some other previously unpublished (optical) matter. Dr Tönnies has found much to amend in Molesworth's text. Both 'Elements' and 'Behemoth,' it will be remembered, were written out long before they were printed, and the copies taken in the interval—numerous in the case of the 'Elements'—were not at all carefully made. In Molesworth, the text of 'Human Nature' is the most seriously at fault. Perhaps the worst example is at the beginning of c. 12 § 3 (E., iv. 68), where the words run: "*Voluntary* actions and omissions are such as have beginning in the *will;* all others are *involuntary*, or *mixed voluntary; involuntary*, such as he doth by necessity of nature; . . . . *mixed*, such as participate of both," &c. Here "*mixed voluntary*" is nonsense, and the "he" that follows is not accounted for. The passage, as correctly given in the original edition of 1650 (followed by Mallet), should read: ". . . all others are *involuntary*, or *mixed: voluntary*, such as a man doth upon appetite or fear; *involuntary*, such as he doth," &c. The second edition of 1651, though professing to be "augmented and much corrected by the author's own hand," introduces the error "*mixed voluntary*" by omitting the all-important colon, but retains the words "such as a man," &c.; being followed in the third edition (included with 'De Corpore Politico' and 'Liberty and Necessity' in

have been forward to urge that, in any less brilliant and piquant setting than he was able to give them, his ideas would at once have been recognised as a mere renewal of antiquated and long exploded errors; while less unsympathetic readers have yielded themselves to the charm of a diction as direct and vivid as writer ever had at command. The terms of Diderot's admiration for the pregnant thought so pointedly expressed have already been quoted, and it is useless to single out other voices from the chorus of praise. Setting himself, as we saw, long before he ventured forth in print, to acquire a style (in Latin) that should marry words to thought, he had, and maintained a hold of, the significant function of speech that no one has ever surpassed; while his exposition is ever lighted up by the gleams of a most picturesque fancy. Not from 'Leviathan' only, though most readily, perhaps, from that masterpiece, whole pages might be made up of bright and pithy sayings that strike the understanding with unerring effect; and, but for a certain quaintness in the turns of expression, the reader, as he follows the even, limpid flow of the well-constructed sentences and paragraphs, has it hardly suggested to him that he is dealing with a writer of the seventeenth century—when poetry was better than prose, and the most powerful minds were apt, in exposition, to be more the slaves than the masters of speech. If in the foregoing pages no attempt has been made to give an adequate representation of Hobbes as a writer, it is because it was thought that this was least of all necessary. To seek

the so-called 'Hobbes's Tripos') of 1684, and also in the folio edition of 1750. Molesworth unaccountably goes on to make the second omission.

some understanding of the full range of his manifold and prolonged activity as a thinker in relation to the circumstances in which he lived and moved—as it had never before been fairly essayed—seemed the more imperative task.

Note on the Hardwick MSS.

At various places above (indicated in the following Index), the more important of the Hardwick MSS. have been mentioned; but it should be added that they include also a copy of the Latin autobiography in verse (p. 201 above), with tremulous corrections in Hobbes's own hand, and a large number of letters received by him, chiefly from French correspondents, after his return in 1651. They are doubtless the same as are referred to by Kennet in the Mem. appended to Wood's 'Ath. Ox.' (Bliss, iii. 1218), where he speaks of seeing—at "Chatsworth," however—"some MSS. copies of Hobbes's own books, very fairly written, and the dedications subscribed by his own hand;" adding: "Mons. Huet told me there was an old box of his papers in the house, containing chiefly the correspondence between him and foreigners." Du Verdus (see p. 62 n.) contributes most largely to the correspondence; beginning early to write long letters full of stories (more and more suggestive of monomania) concerning the persecution to which he was subjected by his family, in league with the ecclesiastical authorities at Bordeaux. His proper name was De Bonneau, Seigneur du Verdus, and some few years ago representatives of the family were still flourishing in the region. As Hobbes had been very regular in his replies, search was desired and was kindly undertaken for any letters of his that might have been preserved; but none could be found. The other Hardwick correspondents, except Sorbière and the Dutch publisher Blaeu (see p. 196), are of no account.

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